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ABSTRACT

The "General Mathematics" series is intended to introduce students to basic mathematic principles and concepts as well as to the opportunity to apply those principles and concepts. This color coded module, one of six in the series, will allow students to build or increase their level of understanding of whole numbers and will help students develop basic whole number skills that are necessary for many vocational jobs and that are needed as a basis for additional understanding. Units include: (1) "Place Value"; (2) "Rounding Whole Numbers"; (3) "Adding Whole Numbers"; (4) "Subtracting Whole Numbers"; (5) "Multiplying Whole Numbers"; (6) "Dividing Whole Numbers"; and (7) "Reviewing Whole Numbers." The standard format for each unit is as follows: performance objectives; suggested activities; information sheet; tests; pretests; and answers to tests; and depending on the specific objectives, there may or may not be assignment sheets, job sheets; transparency masters and supplements. (YP)

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ED312164

MATHEMATICS SERIES
Principles, Concepts and Applications

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WHOLE NUMBERS

SE 051 019

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WHOLE NUMBERS

Developed by the
Curriculum and Instructional Materials Center
Oklahoma State Department of Vocational and Technical Education

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WHOLE NUMBERS

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FOREWORD

The *General Mathematics* series is intended to help students become more competent with basic mathematics. The student will be introduced to the basic mathematic principles and concepts as well as have the opportunity to apply those principles and concepts. The series contains six (6) modules ranging from *Whole Numbers* to *Measurement* to *Consumer Math* (which includes managing income and basic microcomputer awareness). Each module takes the students through the important areas within the subject matter to ensure a basic working knowledge and skills.

The *Whole Numbers* module will allow students to build or increase their level of understanding of whole numbers. This module helps students develop those skills necessary to successfully understand and use basic whole number skills that are necessary for many vocational jobs and that act as a basis for additional understanding.

Roy Peters, Jr., Director
Oklahoma State Department of
Vocational and Technical Education

ACKNOWLEDGEMENTS

The development of the *General Mathematics: Whole Numbers* module is credited to the staff of the Oklahoma State Department of Vocational and Technical Education (SDVTE) and various individuals.

A very special thanks goes out to the staff members of the Curriculum and Instructional Materials Center (CIMC). Sheila Stone, Coordinator of Curriculum Development, provided the support and encouragement necessary to successfully develop the series. Dr. Clyde Matthews, past Coordinator of Special Programs, gave his support during the production, and Billie Frazier, Vocational Specialist, provided assistance during the committee validation meetings.

Special thanks goes to the committee members:

Dirk Allen — Harrah High School
Jan Bull — Mangum High School
Kathy Cloud — Rush Springs High School
Margaret Spann — Lindsey High School
Tod Williams — Newcastle High School

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The CIMC would also like to extend a great appreciation to Kaye White, Technical Writer, for her assistance in developing the *Whole Numbers* module.

Throughout the development process, the communications center played an important part. Therefore, a special appreciation is extended to Rose Primeaux, Manager, and typist Lisa Tomlinson.

Terrell B. Ogilvie
Technical Writer
Curriculum and Instructional
Materials Center

OTHER MODULES IN THE *GENERAL MATHEMATICS* SERIES

GEOMETRY

DECIMALS AND PERCENTS

MEASUREMENTS

FRACTIONS

CONSUMER MATH

USE OF THIS PUBLICATION

Instructional Units

Whole Numbers contains seven instructional units. A standard format was established in 1970 for development of instructional materials for all Oklahoma vocational teachers. This format includes basic components that form a unit of instruction: performance objectives, suggested activities, pretest, information sheet, assignment sheets, job sheets, transparency masters and supplements, tests, and answers to tests, pretests, and assignment sheets. Depending on the specific objectives, there may or may not be transparency masters, supplements, assignment sheets, or job sheets included in the unit of instruction.

All of the unit components "zero in" on measurable and observable learning outcomes. Teachers are encouraged to supplement, personalize, localize, and motivate with these materials in order to develop a complete teaching/learning process.

Units of instruction are designed for use in more than one lesson or class period of instruction. Careful study of each unit of instruction by the teacher will help him or her determine the following

A. Amount of material that can be covered in each class period
B. Skills that must be demonstrated
    1. Supplies and equipment needed
    2. Amount of practice needed
    3. Amount of class time needed for demonstrations
C. Supplementary materials, such as pamphlets and filmstrips, that must be ordered
D. Resource people to contact

Performance Objectives (white pages)

Each unit of instruction is based on the performance needed for successful employment in an occupational area. Performance objectives are stated in two forms: unit objectives, stating the subject matter to be covered in a unit of instruction; and specific objectives, stating the performance necessary to reach the unit objective.

Since the objectives of the unit provide direction for the teaching/learning process, it is important that instructors and students have a common understanding of the intent of the objectives. Following is a list of performance terms, their meanings, and behavioral synonyms that may have been used in this material.

A. Name — The individual supplies a name for objects, events, or people

    Behavioral synonyms: Label, list, letter, record, reiterate, repeat, write

B. Identify — The individual selects a named, described, or pictured object by pointing to it, touching it, picking it up, or selecting it

    Behavioral synonyms: Select, mark, match, choose, judge

C. State a rule — The individual communicates a relationship or principle that could be used to solve problems or perform a task

D. Apply a rule — The individual supplies an answer to a problem by using a stated relationship or principle

   Behavioral synonyms: Solve, calculate

E. Describe — The individual relates sufficient characteristics or properties of an object or event so that a second individual will be able to state what is being discussed

   Behavioral synonyms: Define, discuss, interpret, recite, tell how, tell what happens when

F. Distinguish — The individual selects an object or event from two or more that are easily confused

   Behavioral synonyms: Discriminate, differentiate

G. Order — The individual arranges three or more objects or events in a sequence based on a stated property

   Behavioral synonyms: Arrange, sequence, list in order, classify, divide, isolate, sort

H. Construct — The individual makes a physical object, a verbal statement, or a drawing

   (NOTE: *Construct* is used when the finished product or result is important.)

   Behavioral synonyms: Draw, make, build, design, formulate, reproduce, transcribe, convert, put together, compile

I. Demonstrate — The individual performs several operations necessary to carry out a specified process

   (NOTE: *Demonstrate* is used when it is desirable to watch the student perform a task, one of the highest levels of student performance.)

   Behavioral synonyms: Show your work, show procedure, perform an experiment, perform the steps, operate, remove, replace, turn off/on, (dis)assemble, (dis)connect

The objectives should be provided for students and stressed throughout the teaching/learning process. This will help answer any questions concerning performance requirements for each instructional unit. The objectives can also help determine teaching strategies and instructional methods. Prepare for each unit by deciding how each objective can best be taught.

The objective sheet may also be used as a quick pretest to determine prior knowledge of students and to determine whether further study or activities are necessary. Instructors should feel free to modify, delete, or add objectives in order to meet the needs of the students and community. When changes in objectives are made, the instructor should remember to supply the needed information, assignment and/or job sheets, and criterion test items.

Suggested Activities (pink pages)

This component is included only in instructor material. The suggested activities page assists the instructor during the preparation stage of the teaching/learning process by providing suggestions for delivery and/or presentation during the instructional process. Read the suggested activities before teaching the units to allow time to obtain supplemental materials, prepare audio-visual materials, and contact outside resources. Duties of the instructor will vary according to the particular unit.

The references that are listed are ones used in the development of each unit. They should be used by the instructor to supplement her or his knowledge of the subject area or to help students with particular interests or occupational objectives in the area covered.

Pretest (white pages)

This component provides a pre-assessment of the knowledge that a student possesses prior to instruction. In individualized instruction, a student may challenge out of studying some or all of the cognitive objectives. In a group instructional setting, instructors may evaluate the knowledge that a group of students bring with them and determine where instruction should be emphasized.

Supplements (white pages)

Supplements are additional teaching aids that support portions of the information sheet. Supplements include such activities as games, puzzles and additional information. Supplements may be photo-copied for classroom use only.

Transparency Masters (white pages)

Transparency masters provide information in a special way. Transparencies direct the class's attention to the topic of discussion. Transparencies may present new information, or they may reinforce information presented in the information sheet. They are particularly effective when identification is necessary. Make transparencies and place them in the notebook where they will be immediately available for use.

Information Sheet (green pages)

The information sheet provides "must know" content essential for meeting the cognitive (knowledge level) objectives of the unit. The information is written in an outline form and is keyed to the specific objectives.

Instructors will find the information sheet serves as an excellent guide for presenting background knowledge necessary to develop the skills specified in the unit objective. The information sheet may also be used for coordination activities and advisory committees.

Students should read the information sheet before the information is discussed in class. Space is provided in margins for students and instructors to add notes that supplement, localize, personalize, or provide motivation for each unit.

Assignment Sheets (brown pages)

Assignment sheets give students a chance at problem solving, self-assessment, and/or practical experience with the information. They assist students in the application of knowledge that is a necessary prerequisite to skill development. These may be given to the student for completion in class or used for homework assignments. Answer sheets are provided when appropriate and can be used by the student and/or instructor for checking student progress.

Job Sheets (blue pages)

Job sheets are another important segment of a unit of instruction. The job sheets provide a list of equipment, tools, and materials needed to complete a manipulative or psychomotor skill. They describe a step-by-step procedure needed to complete each task or job. Diagrams, photographs, and illustrations are provided to assist students in achieving the skill.

Instructor should demonstrate to students the procedure outlined in each job sheet. Furthermore, the instructor needs to localize the job sheet according to the equipment and supplies available in the local lab or shop situation. Job sheets also furnish potential employers with a picture of the skills being taught and the performances they might reasonably expect from a person who has had this vocational instruction.

Test (white pages)

This component provides criterion-referenced evaluation of every objective listed in the unit of instruction. It is crucial to note that both paper/pencil and performance objectives must be evaluated.

The tests may be written or oral. It is recommended that the tests be divided into shorter tests covering three or four objectives at a time and given soon after those objectives have been covered. A selection of questions from the units covered may be used for final tests at the end of each term if desired. If objectives have been added, deleted, or modified, be sure to make the changes on the test.

The acceptable response on a unit test, 85 percent in most units, may be raised or lowered to fit the topic or students' ability levels. The percentage applies to the overall score, not to each individual question. The final unit grade should be obtained by using the paper/pencil score along with evaluations of student's demonstrations of the desired skills. The tests are in the instructor's book only but may be photo-copied for classroom use only.

Answers to Pretest, Answers to Test, and Answers to Assignment Sheets (pink pages)

These components are designed to assist the instructor in evaluation of student performances.

Teaching Methods

It is a challenge to keep students motivated. Supplement the objectives by providing the "why," personal experiences, and current information. Prepare for each unit by deciding how each objective can best be taught. Allow students to become involved in preparing and planning.

CORRECTIONS AND SUGGESTIONS

The Curriculum and Instructional Materials Center (CIMC) wants to provide vocational instructors and students with materials that are accurate and effective. Although the CIMC strives to maintain the highest standards of development and production, oversights occasionally do occur. If you find any errors in this or other CIMC publications, or have suggestions for improving their usefulness in vocational programs, please notify the CIMC staff. One easy way of pointing out errors is to make a photocopy of the affected pages and to indicate the correction on the copy. You can then mail the information to the CIMC, where it will be used to correct the publication before the materials are reprinted.

To ensure that the material is updated on a timely basis, it is important that you notify the CIMC of necessary corrections as soon as possible after discovering the error. Do not assume that someone else will notice the error and inform us; other users may be making the same assumption. Please send corrections and recommendations for improving this publication to the following address:

Coordinator of Curriculum Development
Curriculum and Instructional Materials Center
Oklahoma State Department of Vocational and
Technical Education
1500 West Seventh Avenue
Stillwater, Oklahoma 74074-4364

PLACE VALUE
UNIT I

UNIT OBJECTIVE

After completing this unit, the student should be able to match the word forms of numbers with the correct numerals and name the place value of digits in a number. The student should be able to write the numerals when given an oral or written list of number words and write number words when given numerals. This ability will be evidenced by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Match terms and definitions related to place value.
2. Match the word forms of numbers between zero and one hundred with the correct numerals.
3. Write the place values and number words for numerals of up to seven digits.
4. Write numerals when given an oral or written list of number words used with money.

PLACE VALUE
UNIT I

SUGGESTED ACTIVITIES

I. Unit contents

A. Objective sheet

B. Suggested activities

C. Pretest

D. Answers to pretest

E. Information sheet

F. Assignment sheets

1. Assignment Sheet #1 — Write the Word and Numeral Forms for 0 through 25

2. Assignment Sheet #2 — Write the Word and Numeral Forms for 26 through 50

3. Assignment Sheet #3 — Write the Word and Numeral Forms for 51 through 75

4. Assignment Sheet #4 — Write the Word and Numeral Forms for 76 through 100

5. Assignment Sheet #5 — Write Numerals

6. Assignment Sheet #6 — Write Number Words

7. Assignment Sheet #7 — Write Numerals and Number Words Used with Money

G. Answers to assignment sheets

H. Test

I. Answers to test

II. Instructor's guide

A. Order (or obtain) materials to supplement unit.

B. Give pretest.

SUGGESTED ACTIVITIES

C. Critique pretest and go over results in class.

(NOTE: Be sure to take up pretests after discussing them in class. Students who score 85 percent or higher on the pretest do not need to study this unit.)

D. Provide students with copies of unit.

E. Discuss unit and specific objectives.

- Explain that students will learn the place value of whole numbers.
- Give students sample problems that require them to determine place value.

F. Discuss information and assignment sheets.

1. Use Information Sheet, Section I, to review terms and definitions associated with place value of whole numbers.
2. Use Information Sheet, Section II, to discuss word forms of numerals.
   - Write word forms of numbers on the chalkboard and let the students practice writing the numeral.
   - Go over the sample problems in class, answering any questions the students may have.
   - Have students complete Assignment Sheets #1 through #5.
   - Discuss the answers in class.
3. Use Information Sheet, Section III, to discuss the place value of whole numbers.
   - Write sample numbers on the chalkboard and let the students find the place values.
   - Discuss the exercise in class.
   - Have the students complete Assignment Sheet #6.
   - Go over the answers in class.
4. Use Information Sheet, Section IV, to discuss numerals and number words used with money.
   - Have the students write examples on the chalkboard.
   - Discuss the examples in class and and answer any questions the students may have.

SUGGESTED ACTIVITIES

- Have students complete Assignment Sheet #7.
- Go over the answers in class.

G. Give test.

H. Critique test and discuss answers in class.

I. Reteach and retest as necessary.

III. Unit reference — Spann, Margaret. *Related Vocational Math*. Stillwater, Oklahoma: State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1972.

PLACE VALUE
UNIT I

PRETEST

NAME _____ SCORE _____

1. Define the following terms.

   a. Digit — _____

   b. Place value — _____

   c. Place holder — _____

   d. Comma — _____

2. Write the correct numeral in the space beside each of the following word forms.

   a. One thousand eighty _____

   b. Seven hundred sixty-two _____

   c. Two hundred nine _____

   d. Ninety-five _____

   e. Twelve million, four hundred seventy thousand _____

   f. Four hundred two _____

   g. Five thousand forty-seven _____

   h. One thousand, one _____

   i. Twenty-seven thousand, two hundred thirty-four _____

   j. Six hundred twenty _____

3. a. Write the place value of each digit in the numeral 8,629,347 in the space beside the digit.

      1) 8 — _____

      2) 6 — _____

      3) 2 — _____

      4) 9 — _____

PRETEST

5) 3 — _____

6) 4 — _____

7) 7 — _____

b. Write the correct word form next to each of the following numerals.

1) 16 _____

2) 13 _____

3) 74 _____

4) 102 _____

5) 7,034 _____

6) 692 _____

7) 381 _____

8) 940,535 _____

9) 4,796,200 _____

10) 2,890,425 _____

4. Write the following amounts of money using numerals, the dollar sign, and the decimal point.

a. Six dollars and no cents _____

b. Twenty-seven dollars and five cents _____

c. Seventy-one cents _____

d. Ninety-one dollars and thirty-five cents _____

e. Fourteen dollars and no cents _____

f. Nine cents _____

g. Three hundred sixteen dollars and eleven cents _____

h. Eighty-two dollars and fifteen cents _____

PRETEST

i. Two hundred dollars and seventeen cents _____

j. Nine thousand, forty-five dollars and seventy-two cents

_____

PLACE VALUE
UNIT I

ANSWERS TO PRETEST

1. a. Any one of the ten numeral symbols 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9
   b. Value or meaning of a digit based on its place or position in a numeral
   c. Zero; used if there is no other digit to occupy that place
   d. Used to group digits in threes, beginning from the right

2. a. 1,080
   b. 762
   c. 209
   d. 95
   e. 12,470,000
   f. 402
   g. 5,047
   h. 1,100
   i. 27,234
   j. 620

3. a. 1) Millions
      2) Hundred-thousands
      3) Ten-thousands
      4) Thousands
      5) Hundreds
      6) Tens
      7) Ones

   b. 1) Sixteen
      2) Thirteen
      3) Seventy-four
      4) One hundred two
      5) Seven thousand, thirty-four
      6) Six hundred ninety-two
      7) Three hundred eighty-one
      8) Nine hundred forty thousand, five hundred thirty-five
      9) Four million, seven hundred ninety-six thousand, two hundred
      10) Two million, eight hundred ninety thousand, four hundred twenty-five

4. a. $6.00
   b. $27.05
   c. $0.71
   d. $91.35
   e. $14.00
   f. $0.09
   g. $316.11
   h. $82.15
   i. $200.17
   j. $9,045.72

PLACE VALUE
UNIT I

INFORMATION SHEET

I. Terms and definitions

A. **Digit** — Any one of the ten numeral symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9

B. **Place value** — Value or meaning of a digit based on its place or position in a numeral

C. **Place holder** — Zero; used if there is no other digit to occupy that place

D. **Comma** — Used to group digits in threes, beginning from the right

(NOTE: Commas make it easier to read large numbers.)

EXAMPLE:	billions	millions	thousands	hundreds	
	4,	645,	750,	236	or 4,645,750,236

II. Word forms of numerals

A. Zero — 0

B. One — 1

C. Two — 2

D. Three — 3

E. Four — 4

F. Five — 5

G. Six — 6

H. Seven — 7

I. Eight — 8

J. Nine — 9

K. Ten — 10

L. Eleven — 11

M. Twelve — 12

N. Thirteen — 13

INFORMATION SHEET

O. Fourteen — 14

P. Fifteen — 15

Q. Sixteen — 16

R. Seventeen — 17

S. Eighteen — 18

T. Nineteen — 19

U. Twenty — 20

V. Thirty — 30

W. Forty — 40

X. Fifty — 50

Y. Sixty — 60

Z. Seventy — 70

AA. Eighty — 80

BB. Ninety — 90

CC. One hundred — 100

DD. One thousand — 1,000

EE. One million — 1,000,000

FF. One billion — 1,000,000,000

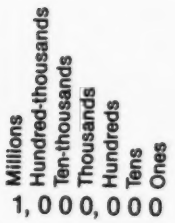
GG. One trillion — 1,000,000,000,000

(NOTE: Use a hyphen in numbers such as twenty-two, forty-six, ninety-nine, etc.)

INFORMATION SHEET

III. Place value

EXAMPLE:



A. The column farthest to the right represents ones

B. The column to the left of the ones column represents tens

C. The column to the left of the tens column represents hundreds

D. The column to the left of the hundreds column represents thousands

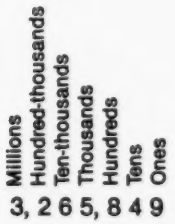
E. The column to the left of the thousands column represents ten-thousands

F. The column to the left of the ten-thousands column represents hundred-thousands

G. The column to the left of the hundred-thousand column represents millions

H. The number is read from left to right

EXAMPLE: In the number 3,265,849 there are 9 ones, 4 tens, 8 hundreds, 5 thousands, 6 ten-thousands, 2 hundred-thousands, and 3 millions; it is read three million, two-hundred sixty-five thousand, eight hundred forty-nine.



INFORMATION SHEET

IV. Numerals and number words used with money

A. Decimal point (.) — Separates dollars from cents; digits on the left represent dollars, and digits on the right represent cents; the decimal point is read "and."

EXAMPLE: $4.33 means four dollars and thirty-three cents.

B. Cents — May be written in three different ways

1. By using the cent sign (¢)

EXAMPLES: 7¢, 65¢

2. By using the dollar sign *and* the decimal point

EXAMPLES: $.07, $.65

3. By using the word cents

EXAMPLES: 7 cents, 65 *cents*

C. Dollars — May be written in three different ways

1. By using the dollar sign

EXAMPLES: $9, $14

2. By using the dollar sign *and* the decimal point

EXAMPLES: $9.00, $14.00

3. By using the word *dollars*

EXAMPLES: 9 dollars, 14 dollars

D. Dollars and cents — Are written using the dollar sign *and* the decimal point

EXAMPLES: $8.09 — eight dollars and nine cents
$60.55 — sixty dollars and fifty-five cents
$327.40 — three hundred twenty-seven dollars and forty cents

PLACE VALUE
UNIT I

ASSIGNMENT SHEET #1 — WRITE THE WORD AND NUMERAL FORMS FOR 0 THROUGH 25

NAME _____ SCORE _____

Write the numerals in order from 0 through 25. Write the correct word form beside each numeral. Spell the words correctly. The first one is done for you as an example.

a.	0	zero	n.	_____	_____
b.	_____	_____	o.	_____	_____
c.	_____	_____	p.	_____	_____
d.	_____	_____	q.	_____	_____
e.	_____	_____	r.	_____	_____
f.	_____	_____	s.	_____	_____
g.	_____	_____	t.	_____	_____
h.	_____	_____	u.	_____	_____
i.	_____	_____	v.	_____	_____
j.	_____	_____	w.	_____	_____
k.	_____	_____	x.	_____	_____
l.	_____	_____	y.	_____	_____
m.	_____	_____	z.	_____	_____

PLACE VALUE
UNIT I

ASSIGNMENT SHEET #2 — WRITE THE WORD AND NUMERAL FORMS FOR 26 THROUGH 50

NAME _____ SCORE _____

Write the numerals in order from 25 through 50. Write the correct word form beside each numeral. Spell the words correctly.

a.	_____	_____	n.	_____	_____
b.	_____	_____	o.	_____	_____
c.	_____	_____	p.	_____	_____
d.	_____	_____	q.	_____	_____
e.	_____	_____	r.	_____	_____
f.	_____	_____	s.	_____	_____
g.	_____	_____	t.	_____	_____
h.	_____	_____	u.	_____	_____
i.	_____	_____	v.	_____	_____
j.	_____	_____	w.	_____	_____
k.	_____	_____	x.	_____	_____
l.	_____	_____	y.	_____	_____
m.	_____	_____	z.	_____	_____

PLACE VALUE
UNIT I

ASSIGNMENT SHEET #3 — WRITE THE WORD AND NUMERAL FORMS FOR 51 THROUGH 75

NAME _____ SCORE _____

Write the numerals in order from 51 through 75. Write the correct word form beside each numeral. Spell the words correctly.

a. _____ _____
b. _____ _____
c. _____ _____
d. _____ _____
e. _____ _____
f. _____ _____
g. _____ _____
h. _____ _____
i. _____ _____
j. _____ _____
k. _____ _____
l. _____ _____
m. _____ _____
n. _____ _____
o. _____ _____
p. _____ _____
q. _____ _____
r. _____ _____
s. _____ _____
t. _____ _____
u. _____ _____
v. _____ _____
w. _____ _____
x. _____ _____
y. _____ _____

PLACE VALUE
UNIT I

ASSIGNMENT SHEET #4 — WRITE THE WORD AND NUMERAL FORMS FOR 76 THROUGH 100

NAME _____ SCORE _____

Write the numerals in order from 76 through 100. Write the correct word form beside each numeral. Spell the words correctly.

a. _____ _____
b. _____ _____
c. _____ _____
d. _____ _____
e. _____ _____
f. _____ _____
g. _____ _____
h. _____ _____
i. _____ _____
j. _____ _____
k. _____ _____
l. _____ _____
m. _____ _____
n. _____ _____
o. _____ _____
p. _____ _____
q. _____ _____
r. _____ _____
s. _____ _____
t. _____ _____
u. _____ _____
v. _____ _____
w. _____ _____
x. _____ _____
y. _____ _____

PLACE VALUE
UNIT I

ASSIGNMENT SHEET #5 — WRITE NUMERALS

NAME _____ SCORE _____

1. Write the numeral for each of the following word forms.

   a. Five thousand _____

   b. One thousand fifty _____

   c. Six thousand two _____

   d. Two thousand, eight hundred _____

   e. Nine thousand, forty-seven _____

   f. Ten thousand, two hundred two _____

   g. Thirty-seven thousand, four hundred sixty-two _____

   h. Forty thousand, eight hundred ninety-seven _____

   i. Eight hundred four thousand, two hundred sixty-three _____

   j. Six hundred twenty-one thousand, one hundred one _____

   k. Eight thousand, six hundred twelve _____

   l. Twenty-seven thousand, four hundred three _____

   m. Five hundred six thousand, two hundred twenty-one _____

   n. Thirty-two million, six hundred thousand, one hundred twenty-nine

      _____

   o. Four hundred six million, ninety-seven thousand, ten _____

   p. Six billion, twenty-eight million, two hundred five thousand, eighteen

      _____

2. Write the place value of each digit in the numeral 2,345,178 in the blank following that digit.

   a. 2 — _____

   b. 3 — _____

   c. 4 — _____

ASSIGNMENT SHEET #5

d. 5 — _____

e. 1 — _____

f. 7 — _____

g. 8 — _____

PLACE VALUE
UNIT I

ASSIGNMENT SHEET #6 — WRITE NUMBER WORDS

NAME _____ SCORE _____

Write number words for each of the following numerals.

1. 400 _____
2. 160 _____
3. 7,005 _____
4. 5,900 _____
5. 6,062 _____
6. 12,205 _____
7. 25,722 _____
8. 65,972 _____
9. 806,924 _____
10. 532,649 _____
11. 800,600 _____
12. 25,403 _____

ASSIGNMENT SHEET #6

13. 703,301

14. 672,453

15. 2,602,420

16. 6,400,300

17. 25,642,728

18. 425,672,920

19. 6,200,300,002

20. 3,247,642,931

PLACE VALUE
UNIT I

ASSIGNMENT SHEET #7 — WRITE NUMERALS AND NUMBER WORDS USED WITH MONEY

NAME _____ SCORE _____

Write the following amounts of money, using numerals, the dollar sign, and the decimal point.

1. Ninety-one cents _____
2. Fifty dollars and one cent _____
3. Thirty cents _____
4. Seventy-five cents _____
5. Sixteen dollars and no cents _____
6. Two dollars and ten cents _____
7. Seven cents _____
8. Fourteen dollars and sevety-four cents _____
9. Nineteen cents _____
10. Twenty dollars and five cents _____
11. Fifty-seven dollars and fifty cents _____
12. Nine cents _____
13. Five cents _____
14. One dollar and twenty-five cents _____
15. Eleven dollars and three cents _____
16. Eight dollars and forty-three cents _____
17. Thirty-two dollars and twenty cents _____
18. One hundred ninety-six dollars and ninety-nine cents _____

_____

ASSIGNMENT SHEET #7

19. Two thousand, forty dollars and twelve cents_____

_____

20. Nine hundred eight-six dollars and seventy-eight cents_____

_____

PLACE VALUE
UNIT I

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

a.	0	zero	n.	13	thirteen
b.	1	one	o.	14	fourteen
c.	2	two	p.	15	fifteen
d.	3	three	q.	16	sixteen
e.	4	four	r.	17	seventeen
f.	5	five	s.	18	eighteen
g.	6	six	t.	19	nineteen
h.	7	seven	u.	20	twenty
i.	8	eight	v.	21	twenty-one
j.	9	nine	w.	22	twenty-two
k.	10	ten	x.	23	twenty-three
l.	11	eleven	y.	24	twenty-four
m.	12	zero	z.	25	twenty-five

Assignment Sheet #2

a.	26	twenty-six	n.	39	thirty-nine
b.	27	twenty-seven	o.	40	forty
c.	28	twenty-eight	p.	41	forty-one
d.	29	twenty-nine	q.	42	forty-two
e.	30	thirty	r.	43	forty-three
f.	31	thirty-one	s.	44	forty-four
g.	32	thirty-two	t.	45	forty-five
h.	33	thirty-three	u.	46	forty-six
i.	34	thirty-four	v.	47	forty-seven
j.	35	thirty-five	w.	48	forty-eight
k.	36	thirty-six	x.	49	forty-nine
l.	37	thirty-seven	y.	50	fifty
m.	38	thirty-eight			

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #3

a.	51	fifty-one	n.	64	sixty-four
b.	52	fifty-two	o.	65	sixty-five
c.	53	fifty-three	p.	66	sixty-six
d.	54	fifty-four	q.	67	sixty-seven
e.	55	fifty-five	r.	68	sixty-eight
f.	56	fifty-six	s.	69	sixty-nine
g.	57	fifty-seven	t.	70	seventy
h.	58	fifty-eight	u.	71	seventy-one
i.	59	fifty-nine	v.	72	seventy-two
j.	60	sixty	w.	73	seventy-three
k.	61	sixty-one	x.	74	seventy-four
l.	62	sixty-two	y.	75	seventy-five
m.	63	sixty-three			

Assignment Sheet #4

a.	76	seventy-six	n.	89	eighty-nine
b.	77	seventy-seven	o.	90	ninety
c.	78	seventy-eight	p.	91	ninety-one
d.	79	seventy-nine	q.	92	ninety-two
e.	80	eighty	r.	93	ninety-three
f.	81	eighty-one	s.	94	ninety-four
g.	82	eighty-two	t.	95	ninety-five
h.	83	eighty-three	u.	96	ninety-six
i.	84	eighty-four	v.	97	ninety-seven
j.	85	eighty-five	w.	98	ninety-eight
k.	86	eighty-six	x.	99	ninety-nine
l.	87	eighty-seven	y.	100	one hundred
m.	88	eighty-eight			

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #5

1. a. 5,000
   b. 1,050
   c. 6,002
   d. 2,800
   e. 9,047
   f. 10,202
   g. 37,462
   h. 40,897
   i. 804,263
   j. 621,101
   k. 8,612
   l. 27,403
   m. 506,221
   n. 32,600,129
   o. 406,097,010
   p. 6,028,205,018

2. a. millions
   b. hundred-thousands
   c. ten-thousands
   d. thousands
   e. hundreds
   f. tens
   g. ones

Assignment Sheet #6

1. four hundred
2. one hundred sixty
3. seven thousand five
4. five thousand nine hundred
5. six thousand sixty-two
6. twelve thousand, two hundred five
7. twenty-five thousand, seven hundred twenty-two
8. sixty-five thousand, nine hundred seventy-two
9. eight hundred six thousand, nine hundred twenty-four
10. five hundred thirty-two thousand, six hundred forty-nine
11. eight hundred thousand, six hundred
12. twenty-five thousand, four hundred three
13. seven hundred three thousand, three hundred one
14. six hundred seventy-two thousand, four hundred fifty-three
15. two million, six hundred two thousand, four hundred twenty
16. six million, four hundred thousand, three hundred
17. twenty-five million, six hundred forty-two thousand, seven hundred twenty-eight
18. four hundred twenty-five million, six hundred seventy-two thousand, nine hundred twenty
19. six billion, two hundred million, three hundred thousand, two
20. three billion, two hundred forty-seven million, six hundred forty-two thousand, nine hundred thirty-one

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #7

1. $.91
2. $50.01
3. $.30
4. $.75
5. $x16.6.00
6. $2.10
7. $.07
8. $14.74
9. $.19
10. $20.05
11. $57.50
12. $.09
13. $.05
14. $1.25
15. $11.03
16. $8.43
17. $32.20
18. $196.99
19. $2,040.12
20. $986.78

PLACE VALUE
UNIT I

TEST

NAME _____ SCORE _____

1. Match terms and definitions related to place value. Write the correct answers in the blanks.

_____a.	Any one of the ten numeral symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9	1. Comma
_____b.	Value or meaning of a digit based on its place or position in a numeral	2. Digit
_____c.	Zero; used if there is no other digit to occupy that place	3. Place holder
_____d.	Used to group digits in threes, beginning from the right	4. Place value

2. Write the correct numeral in the space beside each of the following word forms.

a. sixteen _____

b. ninety-eight _____

c. four _____

d. thirty-three _____

e. seventy _____

f. twenty-one _____

g. thirteen _____

h. eighty-seven _____

i. six _____

j. fifty-five _____

k. nineteen _____

l. nine _____

m. sixty-three _____

TEST

n. forty-two _____

o. seventy-seven _____

p. ninety _____

q. zero _____

r. seventeen _____

s. one hundred _____

t. forty-eight _____

3. a. Write the place value of each of the digits in the numeral 4,872,963 in the space beside that digit.

1) 3_____

2) 8_____

3) 9_____

4) 6_____

5) 7_____

6) 4_____

7) 2_____

b. Write the correct word form next to each of the folloiwng numerals.

1) 102_____

2) 402,506_____

3) 436,789_____

4) 6,700,921_____

5) 3,420,302,012_____

4. Write the following amounts of money using numerals, the dollar sign, and decimal point.

a. Nineteen dollars and forty-eight cents_____

b. One hundred seventy-six dollars and eighty-two cents_____

TEST

c. Five hundred twenty-two dollars and nine cents_____

d. Ninety-nine cents_____

e. Two thousand, eight dollars and no cents_____

f. One hundred fifty-six dollars and thirty-two cents_____

g. Nine million dollars and twelve cents_____

h. Eight hundred twenty-three dollars_____

i. Seven cents_____

j. Twenty-eight thousand, thirteen dollars and sixty-seven cents_____

PLACE VALUE
UNIT I

ANSWERS TO TEST

1. a. 2
   b. 4
   c. 3
   d. 1

2. a. 16
   b. 98
   c. 4
   d. 33
   e. 70
   f. 21
   g. 13
   h. 87
   i. 6
   j. 55
   k. 19
   l. 9
   m. 63
   n. 42
   o. 77
   p. 90
   q. 0
   r. 17
   s. 100
   t. 48

3. a. 1) Ones
      2) Hundred-thousands
      3) Hundreds
      4) Tens
      5) Ten-thousands
      6) Millions
      7) Thousands

   b. 1) One hundred two
      2) Four hundred two thousand, five hundred six
      3) Four hundred thirty-six thousand, seven hundred eighty-nine
      4) Six million, seven hundred thousand, nine hundred twenty-one
      5. Three billion, four hundred twenty million, three hundred two thousand, twelve

4. a. $19.48
   b. $176.82
   c. $522.09
   d. $.99
   e. $2,008.00
   f. $156.32
   g. $9,000,000.12
   h. $823.00
   i. $.07
   j. $28,013.67

ROUNDING WHOLE NUMBERS
UNIT II

UNIT OBJECTIVE

After completing this unit, the student should be able to round whole numbers to the nearest ten, nearest hundred, and nearest thousand. This knowledge will be evidenced by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Round whole numbers to the nearest ten.
2. Round whole numbers to the nearest hundred.
3. Round whole numbers to the nearest thousand.

ROUNDING WHOLE NUMBERS
UNIT II

SUGGESTED ACTIVITIES

I. Unit contents

A. Objective sheet

B. Suggested activities

C. Pretest

D. Answers to pretest

E. Information sheet

F. Assignment sheets

1. Assignment Sheet #1 — Round Whole Numbers to the Nearest Ten
2. Assignment Sheet #2 — Round Whole Numbers to the Nearest Hundred
3. Assignment Sheet #3 — Round Whole Numbers to the Nearest Thousand
4. Assignment Sheet #4 — Review Rounding Skills

G. Answers to assignment sheets

H. Test

I. Answers to test

II. Instructor's Guide

A. Order (or obtain) materials to supplement unit.

B. Give pretest.

C. Critique pretest and go over results in class.

(NOTE: Be sure to take up pretests after discussing them in class. Students who score 85 percent or higher on the pretest do not need to study this unit.)

D. Provide students with copies of unit.

E. Discuss unit and specific objectives.

- Explain that students will learn to round whole numbers.

SUGGESTED ACTIVITIES

- Discuss situations that will require students to know how to round numbers.

F. Discuss information and assignment sheets.

- Use the Information Sheet, Sections I through III, to discuss how to round whole numbers.
- Put sample numbers on the chalkboard and let the students practice rounding.
- Go over the answers and discuss any problems students have.
- Have students complete Assignment Sheets #1 through #3.
- Check answers in class and discuss any problems.
- Have students complete Assignment Sheet #4.
- Check answers in class.

G. Give test.

H. Critique test and discuss in class.

I. Reteach and retest as necessary.

II. Unit reference — Spann, Margaret. *Related Vocational Math*. Stillwater, Oklahoma: Oklahoma State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1972.

ROUNDING WHOLE NUMBERS
UNIT II

PRETEST

NAME _____ SCORE _____

1. Round the following numbers to the nearest ten. Write the correct answers in the blanks.

   a. 54 _____

   b. 126 _____

   c. 37 _____

   d. 879 _____

   e. 506 _____

   f. 79 _____

   g. 344 _____

   h. 582 _____

   i. 18 _____

   j. 93 _____

2. Round the following numbers to the nearest hundred. Write the correct answers in the blanks.

   a. 174 _____

   b. 5,468 _____

   c. 1,379 _____

   d. 596 _____

   e. 673 _____

   f. 258 _____

   g. 8,964 _____

   h. 732 _____

   i. 246 _____

   j. 3,988 _____

PRETEST

3. Round the following numbers to the nearest thousand. Write the correct answers in the blanks.

   a. 30,978 _____

   b. 98,763 _____

   c. 1,354 _____

   d. 5,769 _____

   e. 89,723 _____

   f. 4,687 _____

   g. 2,431 _____

   h. 9,134 _____

   i. 6,826 _____

   j. 1,952 _____

ROUNDING WHOLE NUMBERS
UNIT II

ANSWERS TO PRETEST

1. a. 50
   b. 130
   c. 40
   d. 880
   e. 510
   f. 80
   g. 340
   h. 580
   i. 20
   j. 90

2. a. 200
   b. 5,500
   c. 1,400
   d. 600
   e. 700
   f. 300
   g. 9,000
   h. 700
   i. 200
   j. 4,000

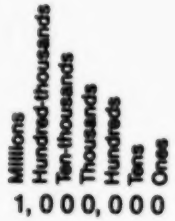
3. a. 31,000
   b. 99,000
   c. 1,000
   d. 6,000
   e. 90,000
   f. 5,000
   g. 2,000
   h. 9,000
   i. 7,000
   j. 2,000

ROUNDING WHOLE NUMBERS
UNIT II

INFORMATION SHEET

I. Rounding a whole number to the nearest ten

EXAMPLE:



A. Look at the digit in the ones column

B. If the digit in the ones column is less than 5, replace it with a zero

EXAMPLE: 52 rounded to the nearest ten is 50, meaning 52 is closer to 50 than to 60, so 50 is the nearest ten.

C. If the digit in the ones column is 5 or greater, replace it with a zero *and* add 1 to the digit in the tens column

(NOTE: Although 5 is exactly in the middle, it is usually rounded *up*.

EXAMPLE: 77 rounded to the nearest ten is 80, meaning 77 is closer to 80 than to 70, so 80 is the nearest ten.

II. Rounding whole numbers to the nearest hundred

A. Look at the digit in the tens column

B. If the digit in the tens column is less than 5, replace it and the digit in the ones column with zeros

EXAMPLE: 316 rounded to the nearest hundred is 300 because it is closer to 300 than to 400.

C. If the digit in the tens column is 5 or greater, replace it and the digit in the ones column with zeroes *and* add 1 to the digit in the hundreds column

EXAMPLE: 488 rounded to the nearest hundred is 500 because 488 is closer to 500 than to 400.

INFORMATION SHEET

III. Rounding whole numbers to the nearest thousand

A. Look at the digit in the hundreds column

B. If the digit in the hundreds column is less than 5, replace it and all the following digits with zeros

EXAMPLE: 2,391 rounded to the nearest thousand is 2000.

C. If the digit in the hundreds column is 5 or greater, replace it and all the following digits with zeros *and* add 1 to the digit in the thousands column

EXAMPLE: 32,958 rounded to the nearest thousand is 33,000.

ROUNDING WHOLE NUMBERS
UNIT II

ASSIGNMENT SHEET #1 — ROUND WHOLE NUMBERS TO THE NEAREST TEN

NAME _____ SCORE _____

Round each of the following numbers to the nearest ten. Write the correct answers in the blanks.

1. 46 _____
2. 554 _____
3. 5,554 _____
4. 85 _____
5. 275 _____
6. 5,275 _____
7. 18,266 _____
8. 2,257 _____
9. 41,983 _____
10. 113,507 _____
11. 7,389 _____
12. 747 _____
13. 1,275 _____
14. 7,465 _____
15. 215 _____
16. 225 _____
17. 647 _____
18. 329 _____
19. 844 _____
20. 573 _____

ROUNDING WHOLE NUMBERS
UNIT II

ASSIGNMENT SHEET #2 — ROUND WHOLE NUMBERS TO THE NEAREST HUNDRED

NAME _____ SCORE _____

Round each of the following numbers to the nearest hundred. Write the correct answers in the blanks.

1. 1,275 _____
2. 945 _____
3. 7,563 _____
4. 4,379 _____
5. 1,735 _____
6. 18,643 _____
7. 70,710 _____
8. 1,650 _____
9. 7,436 _____
10. 3,812 _____
11. 2,213 _____
12. 1,258 _____
13. 676,890 _____
14. 576 _____
15. 829 _____
16. 330 _____
17. 5,473 _____
18. 8,127 _____
19. 9,830 _____
20. 1,576 _____

ROUNDING WHOLE NUMBERS
UNIT II

ASSIGNMENT SHEET #3 — ROUND WHOLE NUMBERS TO THE NEAREST THOUSAND

NAME _____ SCORE _____

Round each of the following numbers to the nearest thousand. Write the correct answers in the blanks.

1. 18,643 _____
2. 70,710 _____
3. 55,076 _____
4. 697,076 _____
5. 1,650 _____
6. 7,436 _____
7. 3,812 _____
8. 10,099 _____
9. 498,510 _____
10. 63,507 _____
11. 978,117 _____
12. 510,902 _____
13. 507,889 _____
14. 700,365 _____
15. 812,400 _____
16. 99,761 _____
17. 436,970 _____
18. 2,213 _____
19. 1,258 _____
20. 999,015 _____

ROUNDING WHOLE NUMBERS
UNIT II

ASSIGNMENT SHEET #4 — REVIEW ROUNDING SKILLS

NAME _____ SCORE _____

Round the following numbers to the nearest ten, to the nearest hundred, and to the nearest thousand.

	Nearest 10	Nearest 100	Nearest 1,000
1. 7,389			
2. 91,785			
3. 4,657			
4. 145,816			
5. 32,987			
6. 4,509			
7. 4,010			
8. 9,055			
9. 9,410			
10. 209,618			
11. 3,476,238			
12. 4,917,819			
13. 1,212			
14. 9,413			
15. 7,627			

ROUNDING WHOLE NUMBERS
UNIT II

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

1. 50	6. 5,280	11. 7,390	16. 230
2. 550	7. 18,270	12. 750	17. 650
3. 5,550	8. 2,260	13. 1,280	18. 330
4. 90	9. 41,980	14. 7,470	19. 840
5. 280	10. 113,510	15. 220	20. 570

Assignment Sheet #2

1. 1,300	6. 18,600	11. 2,200	16. 300
2. 900	7. 70,700	12. 1,300	17. 5,500
3. 7,600	8. 1,700	13. 676,900	18. 8,100
4. 4,400	9. 7,400	14. 600	19. 9,800
5. 1,700	10. 3,800	15. 800	20. 1,600

Assignment Sheet #3

1. 1,900	6. 7,000	11. 978,000	16. 100,000
2. 71,000	7. 4,000	12. 511,000	17. 437,000
3. 55,000	8. 10,000	13. 508,000	18. 2,000
4. 697,000	9. 499,000	14. 700,000	19. 1,000
5. 2,000	10. 64,000	15. 812,000	20. 999,000

Assignment Sheet #4

	Nearest 10	**Nearest 100**	**Nearest 1,000**
1.	7,390	7,400	7,000
2.	91,790	91,800	92,000
3.	4,660	4,700	5,000
4.	145,820	145,800	146,000
5.	32,990	33,000	33,000
6.	4,510	4,500	5,000
7.	4,010	4,000	4,000
8.	9,060	9,100	9,000
9.	9,410	9,400	9,000
10.	209,620	209,600	210,000
11.	3,476,240	3,476,200	3,476,000
12.	4,917,820	4,917,800	4,918,000
13.	1,210	1,200	1,000
14.	9,410	9,400	9,000
15.	7,630	7,600	8,000

ROUNDING WHOLE NUMBERS
UNIT II

TEST

NAME _____ SCORE _____

1. Round the following numbers to the nearest ten. Write the correct answers in the blanks.

   a. 245 _____

   b. 105 _____

   c. 109 _____

   d. 863 _____

   e. 124 _____

2. Round the following numbers to the nearest hundred. Write the correct answers in the blanks.

   a. 260 _____

   b. 784 _____

   c. 2,764 _____

   d. 867 _____

   e. 547 _____

3. Round the following numbers to the nearest thousand. Write the correct answers in the blanks.

   a. 25,602 _____

   b. 2,764 _____

   c. 9,865 _____

   d. 7,531 _____

   e. 8,763 _____

ROUNDING WHOLE NUMBERS
UNIT II

ANSWERS TO TEST

1. a. 250
   b. 110
   c. 110
   d. 860
   e. 120

2. a. 300
   b. 800
   c. 2,800
   d. 900
   e. 500

3. a. 26,000
   b. 3,000
   c. 10,000
   d. 8,000
   e. 9,000

ADDING WHOLE NUMBERS
UNIT III

UNIT OBJECTIVE

After completing this unit, the student should be able to define terms related to addition. The student should also be able to solve story problems which involve addition and solve problems which apply the principles of addition. This knowledge will be evidenced by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Define terms related to addition.
2. Solve problems involving addition.
3. Solve story problems which apply the principles of addition.

ADDING WHOLE NUMBERS
UNIT III

SUGGESTED ACTIVITIES

I. Unit contents

- A. Objective sheet
- B. Suggested activities
- C. Pretest
- D. Answers to pretest
- E. Information sheet
- F. Assignment sheets
  1. Assignment Sheet #1 — Add Pairs of Numbers
  2. Assignment Sheet #2 — Add One-Digit Numbers
  3. Assignment Sheet #3 — Add Two-Digit Numbers
  4. Assignment Sheet #4 — Add Three-Digit Numbers
  5. Assignment Sheet #5 — Add Large Numbers
  6. Assignment Sheet #6 — Review Addition
- G. Answers to assignment sheets
- H. Test
- I. Answers to test

II. Instructor's guide

- A. Order (or obtain) materials to supplement unit.
- B. Give pretest.
- C. Critique pretest and go over results in class.

  (NOTE: Be sure to take up pretests after discussing them in class. Students who score 85 percent or higher on the pretest do not need to study this unit.)

- D. Provide students with copies of unit.

SUGGESTED ACTIVITIES

E. Discuss unit and specific objectives.

- Explain that the purpose of this unit is to learn to add whole numbers.
- Discuss situations that will require students to know how to add numbers.

F. Discuss information and assignment sheets.

1. Use Information Sheet, Section I, to review terms and definitions assoicated with adding whole numbers.

   - Demonstrate the number of digits and how to add digits.
   - Put sample problems on the chalkboard and let the students practice addition.
   - Go over the sample problems in class.
   - Have students complete Assignment Sheets #1 through #4.
   - Discuss the answers in class.

2. Use Information Sheet, Section II, to illustrate the addition process.

   - Write sample problems on the chalkboard. Let the students solve the problems.
   - Go over the problems in class.
   - Have the students complete Assignment Sheet #5.
   - Discuss the answers in class.
   - Have students complete Assignment Sheet #6 for a review.
   - Check answers in class and discuss.

G. Give test.

H. Critique test and discuss in class.

I. Reteach and retest as necessary.

III. Unit reference — Spann, Margaret. *Related Vocational Math*. Stillwater, Oklahoma: Oklahoma State Department of Vocational and Technical Education/Curriculum and Instructional Materials, 1972.

ADDING WHOLE NUMBERS
UNIT III

PRETEST

NAME _____ SCORE _____

1. Define the following terms.

   a. Digit — _____

   _____

   b. Sum — _____

   _____

   c. Addends — _____

   _____

2. Solve the following addition problems. Show your work.

   a. $\begin{array}{r} 7 \\ +\,9 \\ \hline \end{array}$ b. $\begin{array}{r} 3 \\ +\,4 \\ \hline \end{array}$ c. $\begin{array}{r} 9 \\ +\,8 \\ \hline \end{array}$ d. $\begin{array}{r} 6 \\ +\,5 \\ \hline \end{array}$

   e. 2 + 5 + 7 =

   f. 3 + 1 + 0 =

   g. 5 + 9 + 8 =

   h. 7 + 6 + 4 =

PRETEST

i. 26 + 41

j. 72 + 98

k. 38 + 14

l. 64 + 83

m. 109 + 473 + 189

n. 714 + 279 + 444

o. 619 + 508 + 379

p. 594 + 479 + 367

q. 9012 + 7239 + 8176

r. 2789 + 4263 + 3487

s. 8105 + 2473 + 5021

t. 4901 + 9476 + 3720

PRETEST

u.	v.	w.	x.
23795	90371	81709	50710
42785	30004	19632	72100
72106	78915	46041	41124
34601	63737	62710	27439
+ 10036	+ 52516	+ 20001	+ 10078

3. Solve the following story problems. Show your work.

   a. Marilyn had 29 buttons saved for her sewing class. Joyce gave her 14, and Jilda gave her 37. How many buttons does Marilyn have now?

   b. During a three month period, Steve repaired 3 engines in October, 5 engines in November, and 7 engines in December. How many engines did Steve repair?

PRETEST

c. Guy drove 251 miles in July, 479 miles in August, and 387 miles in September. How many miles did Guy drive?

d. Marquetta prepared her cosmetology kit for State Board. She has 32 blue rods, 44 grey rods, 20 yellow rods, and 16 pink rods. How many rods does Marquetta have?

e. Sabrina has a tire trading business. In one five day period, she received 13, 24, 211, 1021, and 729 tires for trade. How many tires did Sabrina trade?

ADDING WHOLE NUMBERS
UNIT III

ANSWERS TO PRETEST

1. a. Any one of the ten numerical symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9
   b. Answer to an addition problem
   c. Two or more numbers or groups of numbers that are added together

2. a. 16
   b. 7
   c. 17
   d. 11
   e. 14
   f. 4
   g. 22
   h. 17
   i. 67
   j. 170
   k. 52
   l. 147
   m. 771
   n. 1437
   o. 1506
   p. 1440
   q. 24,427
   r. 10,539
   s. 15,599
   t. 18,097
   u. 183,323
   v. 315,543
   w. 230,093
   x. 201,451

3. a. 80 buttons
   b. 15 engines
   c. 1117 miles
   d. 112 rods
   e. 1998 tires

ADDING WHOLE NUMBERS
UNIT III

INFORMATION SHEET

I. Terms and definitions

A. Digit — Any one of the ten numerical symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9

B. Addends — Two or more numbers or groups of numbers that are added together

C. Sum — Answer to an addition problem

(NOTE: The sum may also be called the *total*.)

D. Carry — To transfer a digit from one numerical column to the next larger column during addition

EXAMPLE: When adding 23 and 19, the numbers from the ones column add up to 12, so the 2 remains in the ones column and the 1 is carried to the tens column and added in there.

```
  (1)   (Carry the 1)
   23
 + 19
 ----
   42
```

II. Adding numbers

A. Write the numbers one under another with the ones column, tens column, hundres column, and so on in a straight line

B. Add all the numbers in the ones column; carry if necessary

EXAMPLE:

```
  1420
   915
+  123
 ----
     8   (Partial Sum)
```

C. Add all the numbers in the tens column; carry if necessary

EXAMPLE:

```
  1420
   915
+  123
 ----
    58   (Partial Sum)
```

INFORMATION SHEET

D. Add all the numbers in the hundreds column; carry if necessary

EXAMPLE:
$$\begin{array}{r} {\scriptstyle (1)} \\ 1420 \\ 915 \\ +\ 123 \\ \hline 458 \end{array}$$
(Carry the 1)
(Partial Sum)

E. Add all remaining numbers by column until sum is obtained

EXAMPLE:
$$\begin{array}{r} {\scriptstyle (1)} \\ 1420 \\ 915 \\ +\ 123 \\ \hline 2458 \end{array}$$
(Carry the 1)
(Sum)

III. Solving story problems

A. Read the story problem

B. Determine the things that must be added to find the solution; these are the addends

C. List the addends with columns aligned

D. Add the columns to find the sum

(NOTE: Be sure the answer is given as the *kind* of thing added, such as dollars, apples, or pages.)

ADDING WHOLE NUMBERS
UNIT III

ASSIGNMENT SHEET #1 — ADD PAIRS OF NUMBERS

NAME _____ SCORE _____

Add the following pairs of numbers.

1.	a. 7 + 1	b. 2 + 9	c. 2 + 5	d. 2 + 8	e. 4 + 4	f. 4 + 1	g. 3 + 1
	h. 4 + 0	i. 1 + 8	j. 9 + 9	k. 7 + 7	l. 2 + 0	m. 6 + 1	n. 5 + 4
2.	a. 1 + 7	b. 2 + 1	c. 0 + 0	d. 5 + 5	e. 2 + 2	f. 0 + 1	g. 7 + 2
	h. 1 + 9	i. 0 + 5	j. 8 + 1	k. 6 + 2	l. 0 + 4	m. 0 + 9	n. 3 + 6
3.	a. 9 + 7	b. 1 + 2	c. 8 + 2	d. 6 + 4	e. 1 + 4	f. 9 + 1	g. 5 + 0
	h. 6 + 6	i. 3 + 2	j. 4 + 3	k. 1 + 5	l. 9 + 3	m. 2 + 6	n. 9 + 0

ASSIGNMENT SHEET #1

4. a. 3 + 5 = ____ b. 6 + 3 = ____ c. 7 + 3 = ____ d. 2 + 7 = ____ e. 8 + 7 = ____ f. 4 + 8 = ____ g. 8 + 0 = ____

h. 1 + 0 = ____ i. 5 + 2 = ____ j. 4 + 2 = ____ k. 1 + 2 = ____ l. 5 + 3 = ____ m. 0 + 3 = ____ n. 0 + 9 = ____

5. a. 6 + 8 = ____ b. 6 + 9 = ____ c. 5 + 7 = ____ d. 7 + 8 = ____ e. 8 + 4 = ____ f. 9 + 6 = ____ g. 5 + 9 = ____

h. 8 + 9 = ____ i. 8 + 6 = ____ j. 4 + 7 = ____ k. 7 + 5 = ____ l. 4 + 9 = ____ m. 9 + 5 = ____ n. 9 + 4 = ____

ADDING WHOLE NUMBERS
UNIT III

ASSIGNMENT SHEET #2 — ADD ONE-DIGIT NUMBERS

NAME _____ SCORE _____

1. Solve the following problems.

a. 6 + 4 + 7 =

b. 8 + 9 + 1 =

c. 7 + 4 + 6 =

d. 8 + 2 + 7 =

e. 9 + 3 + 7 =

f. 8 + 7 + 2 =

g. 6 + 4 + 8 =

h. 5 + 5 + 8 =

i. 5 + 3 + 5 =

j. 3 + 6 + 7 =

k. 1 + 6 + 9 =

l. 6 + 8 + 4 =

m. 5 + 9 + 5 =

n. 7 + 3 + 7 =

2. Solve the following problems.

a. 3 + 7 + 2 + 8 + 2 + 5 =

b. 7 + 4 + 6 + 7 + 8 + 2 =

c. 9 + 1 + 8 + 2 + 4 + 8 =

ASSIGNMENT SHEET #2

d. 7 + 1 + 9 + 2 + 8 + 4 =

e. 6 + 9 + 8 + 2 + 4 + 6 =

f. 8 + 2 + 4 + 6 + 3 + 8 =

g. 9 + 1 + 4 + 7 + 6 + 8 =

h. 7 + 4 + 4 + 6 + 6 + 2 =

i. 1 + 6 + 4 + 9 + 8 + 1 =

j. 2 + 6 + 4 + 8 + 9 + 2 =

3. Solve the following story problems. Show your work.

   a. Kathy lives 3 miles north, 5 miles west, then 2 miles north from town. How far does she live from town?

   b. Jill has 9 yards of gingham, 6 yards of cretonne, and 8 yards of velvet. How many yards of material does she have in all?

   c. Mary solved 7 problems, Jim solved 8 problems and Jean solved 9 problems. How many problems were solved in all?

ASSIGNMENT SHEET #2

d. Jean missed 3 words on the spelling test, Mary missed 9 words on the same test, and John missed 8 words. How many words were missed on the test.

e. Alice had 5 straight pins; Alta gave her 4 more straight pins. How many straight pins does Alice have now?

f. Jim was supposed to take care of all the hammers for the construction class. He counted 8 curved claw, 9 straight claw, 6 tack, 2 sledge, 7 ball peen, 9 half hatchet, and 2 engineer hammers. How many hammers does Jim have to care for?

g. Kelly has to take care of the pliers and screwdrivers in the construction class. She has to care for 7 Phillips, 5 standard, and 4 offset screwdrivers. She also has to care for 7 linesmen's side cutting, 5 vise-grip, 8 combination clip-joint, 4 diagonal, 7 channel-lock, and 8 needlenose pliers. How many tools does Kelly have to care for?

h. In the tool room, there are 7 hand drills, 9 carpenter braces, and 4 breast drills. There are also 5 rasp files, 3 taper triangular files, 5 half-round files, and 7 flat files. If it is the tool supervisor's job to care for these tools, how many tools does the tool supervisor have to care for?

i. Gary has to care for the wrenches in the tool room. There are 5 socket sets, 4 spark-plug sockets, 8 open-end wrenches, and 4 torque wrench handles. How many tools does Gary have to care for?

ASSIGNMENT SHEET #2

j. The students in the small engine repair class were collecting engines to work on. Renee brought 4, Glenn brought 3, Jim brought 1, and Jessica brought 3. How many engines do they have to work on?

k. Greg completed 8 projects, Sam completed 5, Mary completed 4 and Tara completed 8. How many projects were completed?

ADDING WHOLE NUMBERS
UNIT III

ASSIGNMENT SHEET #3 — ADD TWO-DIGIT NUMBERS

NAME _____ SCORE _____

1. Solve the following problems. Show your work.

a.	b.	c.	d.	e.
49	37	92	87	44
81	74	38	26	57
+ 27	+ 66	+ 77	+ 44	+ 63

f.	g.	h.	i.	j.
82	36	67	64	72
44	81	38	78	38
+ 25	+ 41	+ 84	+ 72	+ 67

k.	l.	m.	n.	o.
82	47	74	18	75
78	63	36	92	48
32	82	45	47	35
18	28	87	63	62
96	99	23	93	51
+ 54	+ 51	+ 45	+ 27	+ 48

p.	q.	r.	s.	t.
17	57	13	39	32
23	63	93	46	87
36	92	62	72	40
45	83	56	53	79
82	45	98	40	53
90	67	87	79	62
+ 41	+ 32	+ 60	+ 81	+ 81

ASSIGNMENT SHEET #3

2. Solve the following story problems. Show your work.

   a. In completing a repair project, the boys in the class found that the following number of man-hours of work were required: 68, 58, 40, 36, and 27. How many total hours were needed?

   b. During the year, the small-engine repair class purchased the following amounts of gasoline for use in their class: 20 gallons, 25 gallons, 32 gallons, 25 gallons. How many gallons of gasoline did they buy all together?

   c. Glenna had to find the total number of bobbins in the classroom. In one cabinet she found 48, in another 27, in other places she found 17, 12, and 32. How many were there?

ASSIGNMENT SHEET #3

d. In wiring five houses the electricians find that they must install 68, 58, 40, 36, and 27 outlets. How many outlets must be roughed-in all together?

e. Last week Evelyn used 14 cups of sugar in making blackberry jelly on Monday, 12 cups on Tuesday, and 19 more cups were used on Thursday. How many cups of sugar were used in all?

f. During the year, the monthly use of current in kilowatt hours in the shop was as follows: Jan., 45; Feb., 40; Mar., 42; Apr., 38; May, 37; June, 12; July, 15; Aug., 26; Sept., 38; Oct., 40; Nov., 42; Dec., 58. Find the total used during the year.

ASSIGNMENT SHEET #3

g. In eight different boxes there are the following number of 3/4" #8 flat head wood screws: 24, 72, 36, 92, 38, 64, 74, and 67. What is the total number of screws?

h. During 4 months, an electrician used the following numbers of switch outlet boxes on different jobs: 56, 19, 96, 36, 93, 15, 42, and 56. What is the total number used?

i. Mary completed 15 projects, Sue completed 10, Nancy completed 12, Cathy completed 22, and Martha completed 16. How many projects were completed in all?

ASSIGNMENT SHEET #3

j. In the procedures for changing crankcase oil there are 12 steps, for servicing the oil filter there are 14 steps, for checking the spark plugs for proper operation there are 11 steps. How many steps will John have to complete to follow the procedures for these servicing operations?

k. During a certain year, the monthly use of current in kilowatt hours in Bill's house was as follows: Jan., 45; Feb., 40; Mar., 42; Apr., 38; May, 37; June, 32; July, 31; Aug., 33; Sept., 38; Oct., 40; Nov., 42; Dec., 58. Find the total used during the year.

l. An electrical supply house purchased in separate lots 35, 49, 75, and 20 pounds of solder. What was the total amount of solder purchased?

ASSIGNMENT SHEET #3

m. In eight different boxes there are the following number of flat head stove bolts: 24, 72, 36, 92, 38, 64, 74, and 67. What is the total number of bolts?

ADDING WHOLE NUMBERS
UNIT III

ASSIGNMENT SHEET #4 — ADD THREE-DIGIT NUMBERS

NAME _____ SCORE _____

1. Solve the following problems. Show your work.

a. 576
953
462
+ 616

b. 333
478
962
+ 510

c. 747
324
600
+ 598

d. 342
636
877
+ 965

e. 396
728
220
+ 494

f. 923
934
966
+ 123

ASSIGNMENT SHEET #4

g.
$$\begin{array}{r} 327 \\ 240 \\ 136 \\ +\ 238 \\ \hline \end{array}$$

h.
$$\begin{array}{r} 270 \\ 368 \\ 609 \\ +\ 224 \\ \hline \end{array}$$

2. Solve the following story problems. Show your work.

   a. Kathy counted 187 yards, 113 yards, 215 yards and 314 yards of material. How many yards of material did Kathy count?

   b. For building a house, the following items of framing lumber were ordered: 472 board feet of 2″ × 4″ studs; 987 board feet of 2″ × 10″ joists; 827 board feet 2″ × 6″ stock, and 723 board feet of 2″ × 8″ stock. How many board feet of framing lumber were ordered?

ASSIGNMENT SHEET #4

c. In a certain house, a builder applied 528 square feet of gypsum wall board in the kitchen, 640 square feet in the living room and 580 square feet in the dining room. How many square feet did he apply?

d. Magnet wire for a motor repair shop was ordered during 3 months in the amounts of 200 pounds, 250 pounds, 150 pounds, 150 pounds, and 130 pounds. What was the total weight of magnet wire ordered?

e. Packed boxes of supplies weighed 119 pounds, 224 pounds, 387 pounds, and 325 pounds. What was the total weight of the four packed boxes of supplies?

ASSIGNMENT SHEET #4

f. Last year Nancy and Sue delivered 120 Christmas packages, the year before they delivered 115, this year they plan to deliver 135 packages. What will be the total number delivered in 3 years?

g. During the summer months, Melvin worked 106 hours in May, 196 hours in June, 212 hours in July, and 223 hours in August. What was the total number of hours he worked?

ADDING WHOLE NUMBERS
UNIT III

ASSIGNMENT SHEET #5 — ADD LARGE NUMBERS

NAME _____ SCORE _____

1. Solve the following problems Show your work.

a. 642,865
+ 921,567

b. 784,298
+ 843,427

c. 372,486
+ 683,769

d. 478,695
341,287
6,099
7,674
+ 3,032

e. 5,974
8,362
8,913
6,884
+ 4,192

f. 5,463
2,143
3,241
8,622
+ 5,891

ASSIGNMENT SHEET #5

g.
$$\begin{array}{r} 3{,}718 \\ 8{,}932 \\ 5{,}775 \\ 3{,}761 \\ +\ 9{,}514 \\ \hline \end{array}$$

h.
$$\begin{array}{r} 64{,}515 \\ 30{,}607 \\ 78{,}083 \\ 51{,}341 \\ +\ 63{,}677 \\ \hline \end{array}$$

2. Solve the following story problems. Show your work.

   a. One day an oil company delivered 3,872 gallons of gasoline. The next day, 4002 gallons were delivered. What was the total number of gallons delivered?

   b. Rachel and Joanne decided to sell fudge as a fundraising project. On Monday they sold 4,270 pieces; on Tuesday, 1,289 pieces; and on Wednesday, 2,812 pieces. How many pieces did they sell altogether?

ASSIGNMENT SHEET #5

c. A contractor bought 14,500 board feet of 1" native pine, 1,250 board feet of 2" spruce and 1,450 board feet of 3" hemlock. How many board feet of lumber did he buy in all?

d. In making five excavations, the following cubic yards of earth were removed: 5,040; 6,070; 7,940; 11,424 and 35,216. Find the total number of cubic yards of earth removed.

e. A carpenter laid 1,300 wood shingles the first day, 1,400 the second day and 1,500 the third day. How many shingles did she lay in the three days?

ASSIGNMENT SHEET #5

f. An automobile agency had three cars that sold for $2,742, $3,826, and $2,198. What was the total received for the cars?

g. The home economics class made cookies to give to shut-ins. The number made was as follows: oatmeal, 3,460; ginger, 5,920; and raisin, 2,928. What was the total number of cookies made?

ADDING WHOLE NUMBERS
UNIT III

ASSIGNMENT SHEET #6 — REVIEW ADDITION

NAME _____ SCORE _____

1. Solve the following problems. Show your work.

a.	b.	c.	d.	e.
35	45	54	90	7
+ 50	+ 60	+ 90	+ 0	+ 3

f.	g.	h.	i.	j.
23	54	87	35	49
+ 34	+ 50	+ 18	+ 24	+ 53

ASSIGNMENT SHEET #6

k. 789 + 300	l. 384 + 220	m. 900 + 365	n. 987 + 784	o. 123 + 278
p. 28 24 + 20	q. 83 28 + 10	r. 90 95 + 73	s. 28 37 + 19	t. 13 10 + 39
u. 298 300 850 + 679	v. 798 277 184 + 900	w. 900 298 276 + 389	x. 376 910 453 + 936	y. 100 278 281 + 478

ASSIGNMENT SHEET #6

2. Solve the following story problems. Show your work.

   a. The receipts in the Green Fountain Restaurant for two days were $1,456 and $1,988. What was the total for the two days?

   b. In estimating the finished flooring for a house, a contractor listed the room areas as follows: living room, 168 square feet; bedroom, 152 square feet; hall, 45 square feet; and kitchen, 125 square feet. What was the total area to be floored?

   c. When taking inventory, the following amounts of wing nuts were found in five different bins: 105, 112, 227, 116 and 397. What was the total number of wing nuts in all bins?

ASSIGNMENT SHEET #6

d. The following quantities of goods were imported to the United States in a certain year: coffee, 1,808,000,000 pounds; sugar, 6,092,000,000 pounds; and fish, 346,000,000 pounds. Find the total number of pounds imported for the year.

e. In a certain year the American Federation of Musicians had 256,851 members; the Brotherhood of Railroad Trainmen had 217,642; the International Association of Machinists had 949,683; the International Ladies' Garment Workers had 450,802; and the United Association of Plumbers and Steam Fitters had 243,763. What was the total membership of the five unions?

f. A machine shop produced the following numbers of parts on three different days: 8,176; 5,822; and 7,891. What was its total production?

ASSIGNMENT SHEET #6

g. During a certain year the monthly use of current in kilowatt hours in a certain house was as follows: Jan., 45; Feb., 40; Mar., 42; Apr., 38; May, 37; June, 32; July, 31; Aug., 33; Sept. 38; Oct., 40; Nov., 42; Dec., 58. Find the total used during the year.

h. Eight different boxes of supplies were packed. They weighed 24, 72, 36, 48, 38, 64, 20, and 32 pounds. What is the total weight of boxes of supplies?

ADDING WHOLE NUMBERS
UNIT III

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

1.
a. 8
b. 11
c. 7
d. 10
e. 8
f. 5
g. 4
h. 4
i. 9
j. 18
k. 14
l. 2
m. 7
n. 9

2.
a. 8
b. 3
c. 0
d. 10
e. 4
f. 1
g. 9
h. 10
i. 5
j. 9
k. 8
l. 4
m. 9
n. 9

3.
a. 16
b. 3
c. 10
d. 10
e. 5
f. 10
g. 5
h. 12
i. 5
j. 7
k. 6
l. 12
m. 8
n. 9

4.
a. 8
b. 9
c. 10
d. 9
e. 15
f. 12
g. 8
h. 1
i. 7
j. 6
k. 3
l. 8
m. 3
n. 9

5.
a. 14
b. 15
c. 12
d. 15
e. 12
f. 15
g. 14
h. 17
i. 14
j. 11
k. 12
l. 13
m. 14
n. 13

Assignment Sheet #2

1.
a. 17
b. 18
c. 17
d. 17
e. 19
f. 17
g. 18
h. 18
i. 13
j. 16
k. 16
l. 18
m. 19
n. 17

ANSWERS TO ASSIGNMENT SHEETS

2.
- a. 27
- b. 34
- c. 32
- d. 31
- e. 35
- f. 31
- g. 35
- h. 29
- i. 29
- j. 31

3.
- a. 10 miles
- b. 23 yards
- c. 24 problems
- d. 20 words
- e. 9 pins
- f. 43 hammers
- g. 55 tools
- h. 40 tools
- i. 21 tools
- j. 11 engines
- k. 25 projects

Assignment Sheet #3

1.
- a. 157
- b. 177
- c. 207
- d. 157
- e. 164
- f. 151
- g. 158
- h. 189
- i. 214
- j. 177
- k. 360
- l. 370
- m. 310
- n. 340
- o. 319
- p. 334
- q. 439
- r. 469
- s. 410
- t. 434

2.
- a. 229 hours
- b. 102 gallons
- c. 136 bobbins
- d. 229 outlets
- e. 45 cups
- f. 433 kilowatt hours
- g. 467 screws
- h. 413 boxes
- i. 75 projects
- j. 37 steps
- k. 476 kilowatt hours
- l. 179 pounds
- m. 467 bolts

Assignment Sheet #4

1.
- a. 2,607
- b. 2,283
- c. 2,269
- d. 2,820
- e. 1,838
- f. 2,946
- g. 941
- h. 1,471

2.
- a. 829 yards
- b. 3,009 board feet
- c. 1,748 square feet
- d. 880 pounds
- e. 1,055 pounds
- f. 370 packages
- g. 737 hours

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #5

1.
a. 1,564,432
b. 1,627,725
c. 1,056,255
d. 836,787
e. 34,325
f. 25,360
g. 31,700
h. 288,223

2.
a. 7,874 gallons
b. 8,371 pieces
c. 17,200 board feet
d. 65,690 cubic yards
e. 4,200 shingles
f. $8,766.00
g. 12,308 cookies

Assignment Sheet #6

1.
a. 85
b. 105
c. 144
d. 90
e. 10
f. 57
g. 104
h. 105
i. 59
j. 102
k. 1,089
l. 604
m. 1,265
n. 1,771
o. 401
p. 72
q. 121
r. 258
s. 84
t. 62
u. 2,127
v. 2,159
w. 1,863
x. 2,675
y. 1,137

2.
a. $3,444.00
b. 490 square feet
c. 957 wing nuts
d. 8,246,000,000 pounds
e. 2,118,741 members
f. 21,889 parts
g. 476 kilowatt hours
h. 334 pounds

ADDING WHOLE NUMBERS
UNIT III

TEST

NAME _____ SCORE _____

1. Define the following terms.

   a. Digit — _____

   _____

   b. Sum — _____

   _____

   c. Addends — _____

   _____

2. Solve the following addition problems. Show your work.

   a. 5 + 8 + 5 + 2 + 3 =

   b. 6 + 5 + 3 + 4 + 7 + 5 =

   c. 9 + 4 + 3 + 8 =

TEST

d. 13 + 27 + 22 + 18 + 24 + 45 =

e. 35 + 31 + 25 + 17 + 17 + 42 =

f. 26 + 11 + 14 + 39 + 32 + 43 =

TEST

g. 112 + 217 + 333 + 165 + 141 + 332 =

h. 273 + 194 + 215 + 366 + 217 =

i. 2,607 + 3,389 + 1,564 + 3,498 + 2,034 =

TEST

j. 25,843 + 34,892 + 35,257 + 94,902 =

3. Solve the following story problems. Show your work.

a. Anita is a stamp collector. She has 72 United States stamps, 23 stamps from France, 41 stamps from Sweden, 36 stamps from Ireland, and 17 stamps from China. How many stamps does she have in all?

b. Mary has 6 spools of thread, Todd has 4, Evelyn has 5, and Gene has 3. How many spools of thread do they have altogether?

TEST

c. Faye read 175 pages in a novel, Susan read 167 pages, Emily read 212 pages and Frances read 151. How many pages did the girls read altogether?

d. The instructor ordered supplies for the class. She ordered 51 pencils, 18 rulers, and 29 tablets. How many supplies did the instructor order?

e. Gene bought a package containing 110 pins, Mary's package had 125 pins, Susan's package had 100. How many pins did they have altogether?

TEST

f. What is the total floor space in a basement with a recreation room, store room and laundry containing 286 square feet, 91 square feet and 164 square feet respectively?

g. A carpenter put on 386 square feet of shingles the first day, 440 square feet the second day, and 328 the third day. How many square feet of shingles did he put on in three days?

h. The material for a cabinet cost as follows: lumber $476, masonry $148, hardware $62, and paint $90. What was the total cost of the materials?

TEST

i. Find the total number of square inches of plywood in four pieces containing 186 square inches, 1,248 square inches, 812 square inches, and 1,482 square inches.

j. The following materials were charged to a wiring job: meter board, $2; meter switch, $7; conduit, $3; wire, $1; cable, $20; outlet boxes, $3; and switches $4. What was the total amount charged for materials?

k. A factory department has 10 motors of 75, 30, 200, 40, 35, 25, 5, 105, 115, and 185 horsepower. What is the total horsepower of the 10 motors?

TEST

l. What is the total floor space in a shop with a classroom containing 164 square feet, tool storage room containing 91 square feet, and work area containing 980 square feet?

m. The instructor ordered supplies for the mechanical repair class. She ordered 51 parts, 18 tools, and 29 measuring instruments. What was the total number of supplies she ordered?

n. During the month of January, Jim bought a car for $400. He bought a new license plate for $20, a used tire for $5, a part for the motor for $6, and gasoline for $9. How much did he spend during this month?

TEST

o. Sue spent 5 hours disassembling, repairing, and reassembling a small engine. Harvey spent 8 hours repairing his engine, and Paul spent 6 hours on his. What is the total time spent in repairing the three engines?

ADDING WHOLE NUMBERS
UNIT III

ANSWERS TO TEST

1. a. Any one of the ten numerical symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9
   b. Answer to an addition problem
   c. Two or more numbers or groups of numbers that are added together

2. a. 23
   b. 30
   c. 24
   d. 149
   e. 167
   f. 165
   g. 1,300
   h. 1,265
   i. 13,092
   j. 190,894

3. a. 189 stamps
   b. 18 spools
   c. 705 pages
   d. 98 supplies
   e. 335 pins
   f. 541 square feet
   g. 1,154 square feet
   h. $776.00
   i. 3,728 square inches
   j. $40.00
   k. 815 horsepower
   l. 1,235 square feet
   m. 98 supplies
   n. $440.00
   o. 19 hours

SUBTRACTING WHOLE NUMBERS
UNIT IV

UNIT OBJECTIVE

After completing this unit, the student should be able to define terms related to subtraction. The student should also be able to solve subtraction problems involving whole numbers. This knowledge will be evidenced by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Define terms related to subtraction.
2. Solve subtraction problems.
3. Solve story problems involving subtraction.

SUBTRACTING WHOLE NUMBERS
UNIT IV

SUGGESTED ACTIVITIES

I. Unit contents

A. Objective sheet

B. Suggested activities

C. Pretest

D. Answers to pretest

E. Information sheet

F. Assignment sheets

1. Assignment Sheet #1 — Subtract Simple Combinations
2. Assignment Sheet #2 — Subtract One- and Two-Digit Numbers
3. Assignment Sheet #3 — Subtract Two-, Three-, and Four-Digit Numbers
4. Assignment Sheet #4 — Subtract Large Numbers
5. Assignment Sheet #5 — Solve Story Problems

G. Answers to assignment sheets

H. Test

I. Answers to test

II. Instructor's guide

A. Order (or obtain) materials to supplement unit.

B. Give pretest.

C. Critique pretest and go over results in class.

(NOTE: Be sure to take up pretests after discussing them in class. Students who score 85 percent or higher on the pretest do not need to study this unit.)

D. Provide students with copies of unit.

E. Discuss unit and specific objectives.

- Explain that students will learn to subtract whole numbers.
- Discuss situations that would require students to know how to subtract whole numbers.

SUGGESTED ACTIVITIES

F. Discuss information and assignment sheets.

1. Use Information Sheet, Section I, to review terms and definitions associated with subtracting whole numbers.

2. Explain how to subtract whole numbers using Information Sheet, Section II.

- Put sample problems on the chalkboard for the students to practice subtracting.
- Go over the sample problems.
- Have students complete Assignment Sheets #1 through #4.
- Discuss the answers in class.

3. Discuss how to solve story problems involving whole numbers; use Information Sheet, Section III.

- Work through several story problems on the chalkboard to show students the proper procedure for solving story problems.
- Have students complete Assignment Sheet #5.
- Discuss answers in class.

G. Give test.

H. Critique test and discuss answers in class.

I. Reteach and retest as necessary.

III. Unit reference — Spann, Margaret. *Related Vocational Math*. Stillwater, Oklahoma: Oklahoma State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1972.

SUBTRACTING WHOLE NUMBERS
UNIT IV

PRETEST

NAME _____ SCORE _____

1. Define the following terms.

   a. Minuend — _____

   b. Subtrahend — _____

   c. Remainder — _____

   d. Subtraction — _____

   e. Borrow — _____

2. Solve the following problems.

a.	b.	c.	d.
9 − 4	47 − 18	79 − 37	115 − 29

e.	f.	g.	h.
783 − 98	973 − 598	439 − 208	1159 − 783

i.	j.	k.	l.
6123 − 987	2974 − 896	3901 − 2895	7965 − 5899

PRETEST

m.	75,902 - 8,976	n.	63,794 - 9,867	o.	43,897 - 29,909	p.	17,234 - 17,149
q.	798,356 - 29,989	r.	591,973 - 90,789	s.	298,761 - 245,895	t.	943,782 - 875,821
u.	435,981 - 398,798	v.	798,000 - 69,980	w.	39,070 - 3,456	x.	83,947 - 9,789
y.	34,000 - 9,009	z.	783,000 - 94,007				

3. Solve the following story problems. Show your work.

   a. Bob ran 51 miles in one week and James ran 13 miles in one week. How many more miles did Bob run than James?

PRETEST

b. The construction company had 17,597 employees. In August, 3,982 were laid off their jobs. How many employees remained at the company?

c. The senior class sold 1,937 baseball caps, and the junior class sold 3,201 baseball caps. How many more caps did the junior class sell?

d. The Troupe family sold their home for $100,930, and the Chapman family sold their home for $98,795. How much more did the Troupe home sell for?

e. Cora lost $213 at the park. She found $98 of her money. How much money did Cora lose?

SUBTRACTING WHOLE NUMBERS
UNIT IV

ANSWERS TO PRETEST

1. a. The number from which another number is subtracted
   b. The number that is subtracted from another number
   c. The answer to a subtraction problem
   d. The inverse operation of addition
   e. To change a ten in the minuend to ones, to change a 100 to tens, and so forth

2.

a. 5	j. 2,078	s. 52,866
b. 29	k. 1,006	t. 67,961
c. 42	l. 2,066	u. 37,183
d. 86	m. 66,926	v. 728,020
e. 685	n. 53,927	w. 35,614
f. 375	o. 13,988	x. 74,158
g. 231	p. 85	y. 24,991
h. 376	q. 768,367	z. 688,993
i. 5,136	r. 501,184	

3. a. 38 miles
   b. 13,615 employees
   c. 1,264 baseball caps
   d. $2135
   e. $115

SUBTRACTING WHOLE NUMBERS
UNIT IV

INFORMATION SHEET

I. Terms and definitions

A. Minuend — The number from which another number is subtracted

B. Subtrahend — The number that is subtracted from another number

C. Remainder — The answer to a subtraction problem

(NOTE: Another word for remainder is *difference*.)

D. Subtraction — The inverse operation of addition

(NOTE: Inverse means *opposite*.)

EXAMPLES:

64 minuend	127 minuend
− 25 subtrahend	− 96 subtrahend
39 remainder	31 remainder

E. Borrow — Change a ten in the minuend to ones, to change a 100 to tens, and so forth

II. Subtracting whole numbers

A. Write the problem with the subtrahend under the minuend being careful to line up the ones, tens, and hundreds columns exactly; show subtraction with a minus sign (-)

EXAMPLE:
```
  784
- 431
```

B. Subtract the ones column first; write the difference in the ones column in the remainder

EXAMPLE:
```
  784
- 431
    3
```

INFORMATION SHEET

C. Subtract the tens column next; write the difference in the tens column in the remainder

EXAMPLE:
$$\begin{array}{r} 784 \\ -\ 431 \\ \hline 43 \end{array}$$

D. Subtract the hundreds column next, then the thousands column, and so on until the problem has been completed

EXAMPLE:
$$\begin{array}{r} 784 \\ -\ 431 \\ \hline 343 \end{array}$$

(NOTE: You must *always* begin at the right with the ones column and work left.)

E. Borrow from the tens column if the number in the ones column in the subtrahend is bigger than the number above it in the minuend

1. Change one of the tens in the tens column to 10 ones, add them to the ones column, then subtract

EXAMPLE:
$$\begin{array}{rcl} 62 & \text{equals} & 6 \text{ tens } 2 \text{ ones} \\ -\ 27 & \text{equals} & -\ 2 \text{ tens } 7 \text{ ones} \end{array}$$

$$\begin{array}{r} 6 \text{ tens } 2 \text{ ones} \\ -\ 2 \text{ tens } 7 \text{ ones} \end{array} \quad = \quad \begin{array}{r} 5 \text{ tens } 10 + 2 \text{ ones} \\ -\ 2 \text{ tens } \quad 7 \text{ ones} \end{array} \quad = \quad \begin{array}{r} 5 \text{ tens } 12 \text{ ones} \\ -\ 2 \text{ tens } \quad 7 \text{ ones} \\ \hline 3 \text{ tens } 5 \text{ ones} \end{array}$$

2. To remember that you borrowed, cross out the number in the tens column and write the new number of tens (one less) above the column

EXAMPLE:
$$\begin{array}{r} 5 \\ \not{6}2 \\ -\ 27 \\ \hline 35 \end{array}$$

3. Continue subtracting as usual until the problem has been completed

F. Subtract all columns, right to left, borrowing when necessary from the next highest column

INFORMATION SHEET

III. Solving story problems

A. Read problem to determine minuend and subtrahend

B. Write the problem being careful to line up columns exactly

C. Subtract columns working from right to left, borrowing when necessary

D. State the answer in kind of thing requested

EXAMPLES: Dollars, caps, miles

SUBTRACTING WHOLE NUMBERS
UNIT IV

ASSIGNMENT SHEET #1 — SUBTRACTING SIMPLE COMBINATIONS

NAME _____ SCORE _____

Find the remainder for each of the following problems.

1. a. $\begin{array}{r} 6 \\ -\ 1 \\ \hline \end{array}$ b. $\begin{array}{r} 2 \\ -\ 1 \\ \hline \end{array}$ c. $\begin{array}{r} 5 \\ -\ 2 \\ \hline \end{array}$ d. $\begin{array}{r} 6 \\ -\ 3 \\ \hline \end{array}$ e. $\begin{array}{r} 3 \\ -\ 1 \\ \hline \end{array}$

f. $\begin{array}{r} 7 \\ -\ 1 \\ \hline \end{array}$ g. $\begin{array}{r} 4 \\ -\ 3 \\ \hline \end{array}$ h. $\begin{array}{r} 5 \\ -\ 5 \\ \hline \end{array}$ i. $\begin{array}{r} 8 \\ -\ 4 \\ \hline \end{array}$ j. $\begin{array}{r} 6 \\ -\ 5 \\ \hline \end{array}$

k. $\begin{array}{r} 9 \\ -\ 8 \\ \hline \end{array}$ l. $\begin{array}{r} 4 \\ -\ 4 \\ \hline \end{array}$ m. $\begin{array}{r} 9 \\ -\ 1 \\ \hline \end{array}$ n. $\begin{array}{r} 9 \\ -\ 9 \\ \hline \end{array}$ o. $\begin{array}{r} 5 \\ -\ 3 \\ \hline \end{array}$

p. $\begin{array}{r} 5 \\ -\ 4 \\ \hline \end{array}$ q. $\begin{array}{r} 1 \\ -\ 1 \\ \hline \end{array}$ r. $\begin{array}{r} 8 \\ -\ 1 \\ \hline \end{array}$ s. $\begin{array}{r} 4 \\ -\ 2 \\ \hline \end{array}$ t. $\begin{array}{r} 6 \\ -\ 6 \\ \hline \end{array}$

2. a. $\begin{array}{r} 3 \\ -\ 3 \\ \hline \end{array}$ b. $\begin{array}{r} 3 \\ -\ 2 \\ \hline \end{array}$ c. $\begin{array}{r} 7 \\ -\ 7 \\ \hline \end{array}$ d. $\begin{array}{r} 5 \\ -\ 1 \\ \hline \end{array}$ e. $\begin{array}{r} 0 \\ -\ 0 \\ \hline \end{array}$

ASSIGNMENT SHEET #1

f. 3 − 0	g. 5 − 0	h. 9 − 6	i. 8 − 2	j. 10 − 4
k. 8 − 8	l. 9 − 3	m. 7 − 3	n. 6 − 0	o. 9 − 0
p. 7 − 2	q. 12 − 6	r. 10 − 7	s. 8 − 6	t. 11 − 2

3.

a. 6 − 2	b. 10 − 9	c. 10 − 1	d. 10 − 2	e. 7 − 6
f. 9 − 5	g. 8 − 7	h. 4 − 1	i. 2 − 2	j. 7 − 5
k. 6 − 4	l. 8 − 5	m. 13 − 6	n. 15 − 8	o. 11 − 7

ASSIGNMENT SHEET #1

p. $\begin{array}{r} 11 \\ -\ 5 \\ \hline \end{array}$ q. $\begin{array}{r} 11 \\ -\ 8 \\ \hline \end{array}$ r. $\begin{array}{r} 9 \\ -\ 2 \\ \hline \end{array}$ s. $\begin{array}{r} 10 \\ -\ 3 \\ \hline \end{array}$ t. $\begin{array}{r} 14 \\ -\ 7 \\ \hline \end{array}$

4. a. $\begin{array}{r} 7 \\ -\ 4 \\ \hline \end{array}$ b. $\begin{array}{r} 10 \\ -\ 8 \\ \hline \end{array}$ c. $\begin{array}{r} 12 \\ -\ 4 \\ \hline \end{array}$ d. $\begin{array}{r} 12 \\ -\ 8 \\ \hline \end{array}$ e. $\begin{array}{r} 1 \\ -\ 0 \\ \hline \end{array}$

f. $\begin{array}{r} 8 \\ -\ 3 \\ \hline \end{array}$ g. $\begin{array}{r} 7 \\ -\ 0 \\ \hline \end{array}$ h. $\begin{array}{r} 12 \\ -\ 9 \\ \hline \end{array}$ i. $\begin{array}{r} 10 \\ -\ 5 \\ \hline \end{array}$ j. $\begin{array}{r} 10 \\ -\ 6 \\ \hline \end{array}$

k. $\begin{array}{r} 8 \\ -\ 0 \\ \hline \end{array}$ l. $\begin{array}{r} 2 \\ -\ 0 \\ \hline \end{array}$ m. $\begin{array}{r} 15 \\ -\ 9 \\ \hline \end{array}$ n. $\begin{array}{r} 12 \\ -\ 3 \\ \hline \end{array}$ o. $\begin{array}{r} 4 \\ -\ 0 \\ \hline \end{array}$

p. $\begin{array}{r} 14 \\ -\ 9 \\ \hline \end{array}$ q. $\begin{array}{r} 13 \\ -\ 4 \\ \hline \end{array}$ r. $\begin{array}{r} 16 \\ -\ 9 \\ \hline \end{array}$ s. $\begin{array}{r} 14 \\ -\ 5 \\ \hline \end{array}$ t. $\begin{array}{r} 17 \\ -\ 9 \\ \hline \end{array}$

5. a. $\begin{array}{r} 9 \\ -\ 7 \\ \hline \end{array}$ b. $\begin{array}{r} 17 \\ -\ 8 \\ \hline \end{array}$ c. $\begin{array}{r} 15 \\ -\ 7 \\ \hline \end{array}$ d. $\begin{array}{r} 13 \\ -\ 9 \\ \hline \end{array}$ e. $\begin{array}{r} 13 \\ -\ 5 \\ \hline \end{array}$

ASSIGNMENT SHEET #1

f. $\begin{array}{r} 16 \\ -\ 7 \\ \hline \end{array}$ g. $\begin{array}{r} 13 \\ -\ 7 \\ \hline \end{array}$ h. $\begin{array}{r} 13 \\ -\ 8 \\ \hline \end{array}$ i. $\begin{array}{r} 11 \\ -\ 3 \\ \hline \end{array}$ j. $\begin{array}{r} 14 \\ -\ 6 \\ \hline \end{array}$

k. $\begin{array}{r} 9 \\ -\ 4 \\ \hline \end{array}$ l. $\begin{array}{r} 15 \\ -\ 6 \\ \hline \end{array}$ m. $\begin{array}{r} 12 \\ -\ 5 \\ \hline \end{array}$ n. $\begin{array}{r} 14 \\ -\ 8 \\ \hline \end{array}$ o. $\begin{array}{r} 12 \\ -\ 7 \\ \hline \end{array}$

p. $\begin{array}{r} 11 \\ -\ 4 \\ \hline \end{array}$ q. $\begin{array}{r} 11 \\ -\ 6 \\ \hline \end{array}$ r. $\begin{array}{r} 16 \\ -\ 8 \\ \hline \end{array}$ s. $\begin{array}{r} 18 \\ -\ 9 \\ \hline \end{array}$ t. $\begin{array}{r} 11 \\ -\ 9 \\ \hline \end{array}$

SUBTRACTING WHOLE NUMBERS
UNIT IV

ASSIGNMENT SHEET #2 — SUBTRACT ONE- AND TWO-DIGIT NUMBERS

NAME _____ SCORE _____

Find the remainder for each of the following problems.

1. a. $\begin{array}{r} 26 \\ -\ 2 \\ \hline \end{array}$ b. $\begin{array}{r} 30 \\ -\ 3 \\ \hline \end{array}$ c. $\begin{array}{r} 40 \\ -\ 5 \\ \hline \end{array}$ d. $\begin{array}{r} 54 \\ -\ 9 \\ \hline \end{array}$ e. $\begin{array}{r} 66 \\ -\ 3 \\ \hline \end{array}$

2. a. $\begin{array}{r} 70 \\ -\ 4 \\ \hline \end{array}$ b. $\begin{array}{r} 81 \\ -\ 9 \\ \hline \end{array}$ c. $\begin{array}{r} 97 \\ -\ 2 \\ \hline \end{array}$ d. $\begin{array}{r} 86 \\ -\ 4 \\ \hline \end{array}$ e. $\begin{array}{r} 72 \\ -\ 9 \\ \hline \end{array}$

3. a. 60 – 2 =

   b. 55 – 2 =

   c. 48 – 9 =

4. a. 30 – 7 =

   b. 22 – 6 =

   c. 51 – 2 =

5. a. 74 – 7 =

   b. 50 – 6 =

   c. 40 – 8 =

ASSIGNMENT SHEET #2

6. a. 36 – 8 =

   b. 32 – 9 =

   c. 26 – 9 =

7. a. 53 – 9 =

   b. 52 – 5 =

   c. 43 – 6 =

SUBTRACTING WHOLE NUMBERS
UNIT IV

ASSIGNMENT SHEET #3 — SUBTRACT TWO-, THREE-, AND FOUR-DIGIT NUMBERS

NAME _____ SCORE _____

Find the remainder for each of the following problems.

1. 75 − 56	2. 84 − 57	3. 4,635 − 3,187	4. 4,178 − 1,539
5. 218 − 119	6. 983 − 656	7. 771 − 289	8. 53 − 39
9. 74 − 26	10. 62 − 29	11. 77 − 39	12. 123 − 67
13. 111 − 79	14. 204 − 78	15. 356 − 178	16. 378 − 179
17. 4,890 − 362	18. 365 − 209	19. 6,720 − 4,890	20. 7,560 − 2,312

SUBTRACTING WHOLE NUMBERS
UNIT IV

ASSIGNMENT SHEET #4 — SUBTRACT LARGE NUMBERS

NAME _____ SCORE _____

Find the remainder for each of the following problems.

1. 236 − 149	2. 397 − 298	3. 365 − 287	4. 175 − 96
5. 1,260 − 357	6. 2,545 − 1,759	7. 4,815 − 3,927	8. 51,425 − 50,535
9. 27,312 − 25,497	10. 19,621 − 18,146	11. 6,793 − 2,499	12. 577 − 199
13. 30,020 − 9,999	14. 75,892 − 3,475	15. 177,890 − 98,002	

SUBTRACTING WHOLE NUMBERS
UNIT IV

ASSIGNMENT SHEET #5 — SOLVE STORY PROBLEMS

NAME _____ SCORE _____

Solve the following story problems. Show your work.

1. The school library had 175 vocational textbooks. Students checked out 46 vocational textbooks. How many vocational textbooks were left in the library?

2. If 96 home economics projects were assigned, and 18 of them were not completed, how many projects were completed?

3. The girls of the vocational class sold 534 subscriptions to professional magazines, while the boys sold 139 professional magazine subscriptions. How many more subscriptions did the girls sell than the boys?

4. How many more pages must Amanda read in social studies before the end of the semester? Amanda was assigned 247 pages to read. She has already read 129 pages.

ASSIGNMENT SHEET #5

5. This year 84 guests visited the technical center. Last year there were 52 guests. How many more guests visited the technical center this year?

6. Sue worked 64 hours during the fall semester on her project and she worked 24 hours during the spring semester on the project. How many more hours did Sue work on her project during the fall semester?

7. Sherry gave 12 of her 39 bobbins to Charlie. How many bobbins did Sherry have left?

8. Sally read her chapter in 45 minutes. Susan read her chapter in 31 minutes. How much longer did it take Sally to read the chapter?

ASSIGNMENT SHEET #5

9. Julie took two trips during the summer vacation. On one trip she traveled 567 miles and on the other trip she traveled 675 miles. What is the difference in the number of miles in the two trips?

10. The boys in the class completed 93 projects, while the girls completed 29 projects. How many more projects did the boys complete than the girls?

11. A piece of board 38 inches long was cut from a board 72 inches long. What is the length of the remaining piece?

12. How many square feet of plywood remain from an original supply of 10,000 square feet after 6,973 square feet have been used?

ASSIGNMENT SHEET #5

13. It was necessary to use 6,493 bricks from a pile containing 8,640. How many bricks were left?

14. A basement floor space contains 14,650 square feet. How much space remains to be painted after 6,842 square feet have been covered?

15. A lumberyard worker had 632,000 board feet of native pine. If he sold 328,582 board feet, how many board feet remain?

16. A carpenter built a veranda on contract for $450. Her material, labor, and other costs totaled $365. What was her profit?

ASSIGNMENT SHEET #5

17. A contract for excavating called for the removal of 40,000 cubic yards of earth. How many remained after removing 7,643 cubic yards?

18. Bill has 4,700 board feet of oak flooring. If 2,821 board feet are used on one house, how much flooring will be left?

19. Marvin's bill for electricity shows that a total of 1,486 kilowatt hours was used. Of this total, 597 kilowatt hours were used for lighting and the rest for heating water. How many kilowatt hours were used for hot water?

20. Glenn received $181 for a job. He paid $98 for materials used on this job. How much profit did he make?

ASSIGNMENT SHEET #5

21. If 47 spark plugs were taken from a box containing 126 spark plugs, how many were left?

22. A bill for repairs came to $312; a discount of $39 was given. How much did the customer pay for his repairs?

23. A machinist had $6,922 to build a shop. His expenses amounted to $9,342. How much money will he have to borrow?

24. A contractor paid $4,792 for a new truck. He had $9,721 in the bank. What was his bank balance after he paid for the truck?

ASSIGNMENT SHEET #5

25. An automobile was driven 35,486 miles. 12,947 miles of that distance was on company business. How many miles were driven on personal business?

26. Jerry bought a car for $2,425. He was allowed $475 trade-in on his old car and he paid $720 in cash. How much did he still owe? (First add the cash and trade-in, then subtract.)

27. Bill's pay before deductions was $490. His deductions were insurance $5, dues $2, social security $5, and taxes $19. What was his take home pay? (First add all deductions, then subtract.)

28. Sally had 4,798 feet of 1-inch stock. After using 2,995 feet, how many feet remained?

ASSIGNMENT SHEET #5

29. Marvin bought $1,762 worth of supplies. Jim bought $4,281 worth. How much more did Jim spend?

30. Taxes on a group of factory buildings amounted to $2,572,489. Three years later the taxes were $4,921,015. How much had the taxes gone up?

SUBTRACTING WHOLE NUMBERS
UNIT IV

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

1.	a. 5	f. 6	k. 1	p. 1
	b. 1	g. 1	l. 0	q. 0
	c. 3	h. 0	m. 8	r. 7
	d. 3	i. 4	n. 0	s. 2
	e. 2	j. 1	o. 2	t. 0
2.	a. 0	f. 3	k. 0	p. 5
	b. 1	g. 5	l. 6	q. 6
	c. 0	h. 3	m. 4	r. 3
	d. 4	i. 6	n. 6	s. 2
	e. 0	j. 6	o. 9	t. 9
3.	a. 4	f. 4	k. 2	p. 6
	b. 1	g. 1	l. 3	q. 3
	c. 9	h. 3	m. 7	r. 7
	d. 8	i. 0	n. 7	s. 7
	e. 1	j. 2	o. 4	t. 7
4.	a. 3	f. 5	k. 8	p. 5
	b. 2	g. 7	l. 2	q. 9
	c. 8	h. 3	m. 6	r. 7
	d. 4	i. 5	n. 9	s. 9
	e. 1	j. 4	o. 4	t. 8
5.	a. 2	f. 9	k. 5	p. 7
	b. 9	g. 6	l. 9	q. 5
	c. 8	h. 5	m. 7	r. 8
	d. 4	i. 8	n. 6	s. 9
	e. 8	j. 8	o. 5	t. 2

Assignment Sheet #2

1.	a. 24	2. a. 66	3. a. 58	4. a. 23
	b. 27	b. 72	b. 53	b. 16
	c. 35	c. 95	c. 39	c. 49
	d. 45	d. 82		
	e. 63	e. 63		
5.	a. 67	6. a. 28	7. a. 44	
	b. 44	b. 23	b. 47	
	c. 32	c. 17	c. 37	

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #3

1. 19
2. 27
3. 1,448
4. 2,639
5. 99
6. 327
7. 482
8. 14
9. 48
10. 33
11. 38
12. 56
13. 32
14. 126
15. 178
16. 199
17. 4,528
18. 156
19. 1,830
20. 5,248

Assignment Sheet #4

1. 87
2. 99
3. 78
4. 79
5. 903
6. 786
7. 888
8. 890
9. 1,815
10. 1,475
11. 4,294
12. 378
13. 20,021
14. 72,417
15. 79,888

Assignment Sheet #5

1. 129 textbooks
2. 78 projects
3. 395 subscriptions
4. 118 pages
5. 32 guests
6. 40 hours
7. 27 bobbins
8. 14 minutes
9. 108 miles
10. 64 projects
11. 34 inches
12. 3,027 square feet
13. 2,147 bricks
14. 7,808 square feet
15. 303,418 board feet
16. $85.00
17. 32,357 cubic yards
18. 1,879 board feet
19. 889 kilowatt hours
20. $83.00
21. 79 spark plugs
22. $273.00
23. $2,420.00
24. $4,929.00
25. 22,539 miles
26. $1,230.00
27. $459.00
28. 1,803 feet
29. $2,519.00
30. $2,348,526.00

SUBTRACTING WHOLE NUMBERS
UNIT IV

TEST

NAME _____ SCORE _____

1. Define the following terms.

   a. Minuend — _____

   b. Subtrahend — _____

   c. Remainder — _____

   d. Subtraction — _____

   e. Borrow — _____

2. Solve the following problems.

a. 115 − 79	b. 3,262 − 1,573	c. 2,147 − 1,448	d. 1,372 − 1,367
e. 271 − 254	f. 4,344 − 4,156	g. 341 − 296	h. 514 − 505
i. 734 − 645	j. 189 − 93	k. 89,806 − 18,657	l. 30,307 − 5,718
m. 9,008 − 996	n. 590 − 274	o. 1,000 − 887	p. 704 − 67

TEST

q.	r.	s.	t.
502 - 78	50,000 - 8,000	59,060 - 7,846	123,182 - 18,354

3. Solve the following story problems. Show your work.

   a. How many more cookies did Sue make than Mark, if Sue made 132 and Mark made 89?

   b. What is the difference in the number of projects completed, when Sara completed 129 and Jean completed 83?

   c. Sue bought 35 yards of muslin to make curtains for the play room. Jane bought 42 yards of muslin for curtains. What is the difference in the number of yards of muslin the girls bought?

TEST

d. From Antlers to Oklahoma City, the girls traveled 204 miles to the convention. How much further did they travel than the girls from Atoka, who traveled 169 miles?

e. The girls delivered 39 Easter baskets while the boys delivered 48 baskets. What is the difference in the number of baskets delivered?

f. How many more bird houses did Bill make than Tom, if Bill made 100 and Tom made 90?

g. What is the difference in the number of projects completed, if Glen completed 115 and John completed 69?

TEST

h. Terry bought 45 pounds of nails. Jack bought 52 pounds. What is the difference in the number of pounds of nails the boys bought?

i. From Guymon to Oklahoma City, the boys traveled 200 miles. How much farther did they travel than the boys from Atoka, who traveled 160 miles?

j. Tom and Mary delivered 21 Christmas baskets while Sally and Bill delivered 15 baskets. What is the difference in the number of baskets delivered?

k. How many more motors did Greg repair than Bobby, if Greg repaired 133 and Bobby repaired 90?

TEST

l. What is the difference in the number of projects completed, when Jerry completed 141 and Charles completed 95?

m. Carl bought 13 spark plugs. Henry bought 6. What is the difference in the number of spark plugs the boys bought?

n. From Stillwater to Oklahoma City, the boys traveled 65 miles. How much farther did the boys from Atoka travel, when they traveled 180 miles?

p. Pat delivered 38 Christmas wreaths while John delivered 47 wreaths. What is the difference in the number of wreaths delivered?

SUBTRACTING WHOLE NUMBERS
UNIT IV

ANSWERS TO TEST

1. a. The number from which another number is subtracted
   b. The number that is subtracted from another number
   c. The answer to a subtraction problem
   d. The inverse operation of addition
   e. To change a ten in the minuend to ones, to change a 100 to tens, and so forth

2. a. 36
   b. 1,689
   c. 699
   d. 5
   e. 17
   f. 188
   g. 45
   h. 9
   i. 89
   j. 96
   k. 71,149
   l. 24,589
   m. 8,012
   n. 316
   o. 113
   p. 637
   q. 424
   r. 42,000
   s. 51,214
   t. 104,828

3. a. 43 cookies
   b. 46 projects
   c. 7 yards
   d. 35 miles
   e. 9 baskets
   f. 10 bird houses
   g. 46 projects
   h. 7 pounds
   i. 40 miles
   j. 6 baskets
   k. 43 motors
   l. 46 projects
   m. 7 spark plugs
   n. 115 miles
   o. 9 wreaths

MULTIPLYING WHOLE NUMBERS
UNIT V

UNIT OBJECTIVE

After completing this unit, the student should be able to define terms related to multiplication, multiply numbers with up to four digits, and solve story problems requiring multiplication. This knowledge will be evidenced by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. **Define terms related to multiplying whole numbers.**
2. **Multiply numbers by 10, 100, and 1,000.**
3. **Solve multiplication problems.**
4. **Solve story problems requiring multiplication.**

MULTIPLYING WHOLE NUMBERS
UNIT V

SUGGESTED ACTIVITIES

I. Unit contents

A. Objective sheet

B. Suggested activities

C. Pretest

D. Answers to pretest

E. Information sheet

F. Assignment sheets

1. Assignment Sheet #1 — Practice Multiplication Facts
2. Assignment Sheet #2 — Multiply by 10, 100, and 1,000
3. Assignment Sheet #3 — Multiply by a One-Digit Multiplier
4. Assignment Sheet #4 — Multiply by a Two-Digit Multiplier
5. Assignment Sheet #5 — Multiply by a Three-Digit Multiplier
6. Assignment Sheet #6 — Solve Story Problems

G. Answers to assignment sheets

H. Test

I. Answers to test

II. Instructor's guide

A. Order (or obtain) materials to supplement unit.

B. Give pretest.

C. Critique pretest and go over results in class.

(NOTE: Be sure to take up pretests after discussing them in class. Students who score 85 percent or higher on the pretest do not need to study this unit.)

D. Provide students with copies of unit.

SUGGESTED ACTIVITIES

E. Discuss unit and specific objectives.

- Explain that students will learn to multiply whole numbers.
- Discuss situations that would require students to know how to multiply whole numbers.

F. Discuss information and assignment sheets.

1. Use Information Sheet, Section I, to review terms and definitions associated with multiplying whole numbers.
   - Have students complete Assignment Sheet #1.
   - Discuss the answers in class.
2. Explain how to multiply whole numbers using Information Sheet, Sections II and III.
   - Discuss multiplying by 10, 100, and 1,000.
   - Put sample problems on the chalkboard for the students to practice multiplying.
   - Review sample problems with students.
   - Have students complete Assignment Sheets #2 through #5.
   - Discuss the answers with the students in the class.
3. Discuss how to solve story problems by multiplying whole numbers; use Information Sheet, Section IV.
   - Give the students sample problems.
   - Discuss the answers in class.
   - Have students complete Assignment Sheet #6.
   - Go over answers in class.

G. Give test.

H. Critique test and discuss answers in class.

I. Reteach and retest as necessary.

III. Unit reference — Spann, Margaret. *Related Vocational Math*. Stillwater, Oklahoma: Oklahoma State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1972.

MULTIPLYING WHOLE NUMBERS
UNIT IV

PRETEST

NAME _____ SCORE _____

1. Define the following terms.

   a. Multiplier — _____

   b. Multiplicand — _____

   c. Product — _____

   d. Multiplication fact — _____

2. Solve the following problems.

   a. 9 x 10 =

   b. 36 x 100 =

   c. 127 x 1,000 =

   d. 52 x 10 =

   e. 891 x 100 =

   f. 234 x 1,000 =

   g. 593 x 10 =

   h. 62 x 100 =

   i. 5,678 x 1,000 =

   j. 4 x 1,000 =

3. Solve the following problems.

   a. $\begin{array}{r} 3 \\ \times\ 2 \\ \hline \end{array}$ b. $\begin{array}{r} 7 \\ \times\ 5 \\ \hline \end{array}$ c. $\begin{array}{r} 9 \\ \times\ 8 \\ \hline \end{array}$ d. $\begin{array}{r} 4 \\ \times\ 6 \\ \hline \end{array}$

   e. $\begin{array}{r} 5 \\ \times\ 0 \\ \hline \end{array}$ f. $\begin{array}{r} 6 \\ \times\ 9 \\ \hline \end{array}$ g. $\begin{array}{r} 8 \\ \times\ 2 \\ \hline \end{array}$ h. $\begin{array}{r} 23 \\ \times\ 4 \\ \hline \end{array}$

PRETEST

i. 46 × 7

j. 19 × 5

k. 89 × 6

l. 74 × 3

m. 436 × 2

n. 298 × 5

o. 7,416 × 4

p. 1,354 × 7

q. 912 × 14

r. 313 × 26

s. 918 × 74

t. 273 × 124

u. 367 × 413

v. 189 × 156

w. 97,213 × 7

x. 78,156 × 4

y. 68,321 × 5

z. 42,679 × 6

PRETEST

4. Solve the following story problems.

   a. Find the cost of 28 squares of asphalt shingles at $8.00 per square.

   b. The cost of a new garage is $2,755. Find the cost of 13 garages of this kind.

   c. Allowing 760 shingles per square, how many will be required to cover 24 squares?

   d. One man can put on 43 square feet of roof shingles per hour. How many square feet can be put on during an 8 hour day by 6 men working at the same rate?

   e. Terri can address 569 envelopes in one day. How many envelopes would she be able to address in 139 days?

MULTIPLYING WHOLE NUMBERS
UNIT V

ANSWERS TO PRETEST

1. a. Number that does the multiplying
   b. Number that is multiplied
   c. Answer or result of multiplication
   d. Basic statement in multiplication

2. a. 90
   b. 3,600
   c. 127,000
   d. 520
   e. 89,100
   f. 234,000
   g. 5,930
   h. 6,200
   i. 5,678,000
   j. 4,000

3. a. 6
   b. 35
   c. 72
   d. 24
   e. 0
   f. 54
   g. 16
   h. 92
   i. 322
   j. 95
   k. 534
   l. 222
   m. 872
   n. 1,490
   o. 29,664
   p. 9,478
   q. 12,768
   r. 8,138
   s. 67,932
   t. 33,852
   u. 151,571
   v. 29,484
   w. 680,491
   x. 312,624
   y. 341,605
   z. 256,074

4. a. $224.00
   b. $35,815
   c. 18,240 shingles
   d. 2,064 square feet
   e. 79,091 envelopes

MULTIPLYING WHOLE NUMBERS
UNIT V

INFORMATION SHEET

I. Terms and definitions

A. Multiplicand — Number that is multiplied

EXAMPLE: In 9 × 3 = 27, 3 is the multiplicand.

B. Multiplier — Number that does the multiplying

EXAMPLE: In 9 × 3 = 27, 9 is the multiplier

C. Partial product — Result of multiplying a number by one digit of the multiplier; used when the multiplier has two or more digits

D. Product — Answer or result of multiplication

EXAMPLE: In 9 × 3 = 27, 27 is the product.

E. Carry — To change a number from one column in the product to the next

EXAMPLE: A 10 in the ones column is carried to the tens column.

F. Multiplication fact — Basic statement in multiplication

EXAMPLE: 2 × 4 = 8 is a multiplication fact.

(NOTE: By learning the 100 multiplication facts, you can multiply any number, large or small.)

II. Multiplying by 10, 100, and 1,000

A. Multiplying by 10 — Annex a zero to the multiplicand

(NOTE: Annexing zeros is a quick way of multiplying by 10, 100, 1,000, and so on. It means placing zeros at the end of the number being multiplied.)

EXAMPLE: 14 × 10 = 140

B. Multiplying by 100 — Annex two zeros to the multiplicand

EXAMPLE: 14 × 100 = 1,400

C. Multiplying by 1,000 — Annex three zeros to the multiplicand

EXAMPLE: 14 × 1,000 = 14,000

INFORMATION SHEET

III. Multiplying whole numbers

A. Write the multiplicand above the multiplier, being careful to align ones in the ones column, tens in the tens column, and so on

EXAMPLE:
$$\begin{array}{r} 321 \\ \times\ 15 \\ \hline \end{array}$$

B. Multiply the multiplicand by the ones digit of the multiplier

1. Multiply the ones numeral in the multiplicand by the ones numeral in the multiplier; write the result in the ones column in the product and carry the tens if necessary

EXAMPLE:
$$\begin{array}{rl} & (2) \\ & 324 \\ \times & \ 5 \\ \hline & 0 \end{array}$$
(Carry the 2)

2. Multiply the tens numeral in the multiplicand by the ones numeral in the multiplier, *add* on the carry over; write the result in the tens column, and carry the hundreds if necessary

EXAMPLE:
$$\begin{array}{rl} & (1) \\ & 324 \\ \times & \ 5 \\ \hline & 20 \end{array}$$
(Carry the 1)

3. Continue to multiply every numeral in the multiplicand by the ones numeral in the multiplier

EXAMPLE:
$$\begin{array}{r} 324 \\ \times\ 5 \\ \hline 1620 \end{array}$$

INFORMATION SHEET

C. Repeat procedure to multiply the multiplicand by the tens numeral in the multiplier, being careful to align the results in the correct columns

EXAMPLE:

```
   967          (2)(2)      9 6 7
 x  24        x             2 4
-----        -----
                3 8 6 8     (Partial product)
```

```
   (1)(1)                   (Carried numbers)
     9 6 7
   x   2 4
-------
   3 8 6 8                  (Partial product)
1 9 3 4                     (Partial product)
```

D. Find the product by adding partial products

EXAMPLE:

```
     9 6 7                  (Carried numbers)
   x   2 4
-------
   3 8 6 8
+ 1 9 3 4
-------
 2 3, 2 0 8                 (Product)
```

IV. Solving story problems

A. Read the problem

B. Decide what must be multiplied to solve the problem

C. Write and solve numerical problem

D. State answer in requested form

EXAMPLES: Dollars, bolts, kilowatts

MULTIPLYING WHOLE NUMBERS
UNIT V

ASSIGNMENT SHEET #1 — PRACTICE MULTIPLICATION FACTS

NAME _____ SCORE _____

Find the products. See how many you can finish in three minutes.

1.	a.	4 × 3	b.	6 × 4	c.	8 × 2	d.	8 × 3	e.	6 × 0	f.	0 × 8
2.	a.	4 × 2	b.	2 × 7	c.	7 × 3	d.	6 × 3	e.	3 × 5	f.	2 × 3
3.	a.	4 × 0	b.	2 × 9	c.	7 × 1	d.	6 × 9	e.	6 × 8	f.	9 × 7
4.	a.	1 × 9	b.	2 × 1	c.	1 × 7	d.	1 × 6	e.	1 × 3	f.	8 × 8
5.	a.	4 × 7	b.	7 × 8	c.	5 × 7	d.	3 × 7	e.	9 × 8	f.	7 × 4
6.	a.	9 × 0	b.	1 × 5	c.	3 × 0	d.	4 × 5	e.	2 × 4	f.	7 × 0
7.	a.	5 × 3	b.	1 × 2	c.	3 × 4	d.	3 × 9	e.	3 × 8	f.	5 × 4

ASSIGNMENT SHEET #1

8. a. 9×9 b. 1×8 c. 7×9 d. 5×8 e. 8×5 f. 0×7

9. a. 0×2 b. 8×1 c. 1×4 d. 3×3 e. 1×1 f. 9×2

10. a. 6×5 b. 4×9 c. 8×7 d. 5×6 e. 4×6 f. 7×6

11. a. 0×4 b. 3×6 c. 2×5 d. 9×1 e. 5×0 f. 6×2

12. a. 9×3 b. 0×6 c. 0×0 d. 4×8 e. 8×0 f. 2×6

13. a. 0×9 b. 5×1 c. 8×4 d. 2×8 e. 4×4 f. 0×3

14. a. 2×0 b. 6×1 c. 3×2 d. 5×5 e. 2×2 f. 7×7

15. a. 9×4 b. 6×7 c. 5×2 d. 9×6 e. 5×9 f. 9×5

ASSIGNMENT SHEET #1

16. a. $\begin{array}{r} 6 \\ \times\ 6 \\ \hline \end{array}$ b. $\begin{array}{r} 0 \\ \times\ 1 \\ \hline \end{array}$ c. $\begin{array}{r} 3 \\ \times\ 1 \\ \hline \end{array}$ d. $\begin{array}{r} 8 \\ \times\ 9 \\ \hline \end{array}$ e. $\begin{array}{r} 4 \\ \times\ 1 \\ \hline \end{array}$ f. $\begin{array}{r} 8 \\ \times\ 6 \\ \hline \end{array}$

17. a. $\begin{array}{r} 1 \\ \times\ 0 \\ \hline \end{array}$ b. $\begin{array}{r} 7 \\ \times\ 2 \\ \hline \end{array}$ c. $\begin{array}{r} 0 \\ \times\ 5 \\ \hline \end{array}$ d. $\begin{array}{r} 7 \\ \times\ 5 \\ \hline \end{array}$

MULTIPLYING WHOLE NUMBERS
UNIT V

ASSIGNMENT SHEET #2 — MULTIPLY BY 10, 100, AND 1,000

NAME _____ SCORE _____

Solve the following problems.

1. 4 × 10 =
2. 5 × 10 =
3. 12 × 10 =
4. 46 × 10 =
5. 482 × 10 =
6. 3 × 100 =
7. 7 × 100 =
8. 14 × 100 =
9. 73 × 100 =
10. 400 × 100 =
11. 1 × 1,000 =
12. 8 × 1,000 =
13. 36 × 1,000 =
14. 26 × 1,000 =
15. 167 × 1,000 =
16. 7 × 10 =
17. 41 × 10 =
18. 13 × 10 =
19. 310 × 10 =
20. 137 × 10 =
21. 5 × 100 =
22. 2 × 100 =
23. 70 × 100 =
24. 143 × 100 =
25. 230 × 100 =
26. 2 × 1,000 =
27. 4 × 1,000 =
28. 67 × 1,000 =
29. 100 × 1,000 =
30. 128 × 1,000 =
31. 9 × 10 =
32. 20 × 10 =
33. 27 × 10 =
34. 110 × 10 =
35. 230 × 10 =
36. 4 × 100 =
37. 10 × 100 =
38. 83 × 100 =
39. 7,000 × 100 =
40. 730 × 100 =
41. 7 × 1,000 =
42. 20 × 1,000 =
43. 32 × 1,000 =
44. 127 × 1,000 =
45. 782 × 1,000 =

MULTIPLYING WHOLE NUMBERS
UNIT V

ASSIGNMENT SHEET #3 — MULTIPLY BY A ONE-DIGIT MULTIPLIER

NAME _____ SCORE _____

Solve the following problems.

1.	a.	53 × 4	b.	32 × 3	c.	26 × 4	d.	41 × 8	e.	57 × 4
2.	a.	342 × 2	b.	453 × 5	c.	156 × 4	d.	703 × 5	e.	659 × 3
3.	a.	3,245 × 6	b.	1,203 × 3	c.	2,421 × 4	d.	5,103 × 5	e.	4,356 × 7
4.	a.	481 × 7	b.	3,758 × 6	c.	4,256 × 4	d.	908 × 6	e.	3,497 × 9
5.	a.	900 × 3	b.	1,114 × 8	c.	152 × 9	d.	289 × 5	e.	352 × 6
6.	a.	1,506 × 2	b.	3,891 × 3	c.	5,998 × 4	d.	1,317 × 7	e.	107 × 4
7.	a.	620 × 3	b.	589 × 7	c.	2,301 × 8	d.	982 × 4	e.	151 × 3

ASSIGNMENT SHEET #3

8. a. $\begin{array}{r} 1{,}650 \\ \times\ 9 \\ \hline \end{array}$ b. $\begin{array}{r} 950 \\ \times\ 5 \\ \hline \end{array}$ c. $\begin{array}{r} 811 \\ \times\ 8 \\ \hline \end{array}$ d. $\begin{array}{r} 510 \\ \times\ 5 \\ \hline \end{array}$ e. $\begin{array}{r} 620 \\ \times\ 6 \\ \hline \end{array}$

9. a. $\begin{array}{r} 1{,}589 \\ \times\ 8 \\ \hline \end{array}$ b. $\begin{array}{r} 1{,}789 \\ \times\ 9 \\ \hline \end{array}$ c. $\begin{array}{r} 101 \\ \times\ 4 \\ \hline \end{array}$ d. $\begin{array}{r} 111 \\ \times\ 2 \\ \hline \end{array}$ e. $\begin{array}{r} 1{,}895 \\ \times\ 8 \\ \hline \end{array}$

10. a. $\begin{array}{r} 1{,}113 \\ \times\ 6 \\ \hline \end{array}$ b. $\begin{array}{r} 620 \\ \times\ 4 \\ \hline \end{array}$ c. $\begin{array}{r} 91{,}115 \\ \times\ 8 \\ \hline \end{array}$ d. $\begin{array}{r} 59{,}872 \\ \times\ 2 \\ \hline \end{array}$ e. $\begin{array}{r} 60{,}000 \\ \times\ 8 \\ \hline \end{array}$

MULTIPLYING WHOLE NUMBERS
UNIT V

ASSIGNMENT SHEET #4 — MULTIPLY BY A TWO-DIGIT MULTIPLIER

NAME _____ SCORE _____

Find the product of each of the following.

1.	a. 63 × 38	b. 85 × 26	c. 32 × 52	d. 42 × 46	e. 73 × 64
2.	a. 35 × 74	b. 95 × 54	c. 67 × 43	d. 64 × 27	e. 82 × 37
3.	a. 56 × 54	b. 43 × 79	c. 62 × 92	d. 67 × 85	e. 79 × 29
4.	a. 79 × 86	b. 86 × 68	c. 89 × 59	d. 76 × 36	e. 57 × 73

ASSIGNMENT SHEET #4

5. a. $\begin{array}{r} 54 \\ \times\ 83 \\ \hline \end{array}$ b. $\begin{array}{r} 92 \\ \times\ 67 \\ \hline \end{array}$ c. $\begin{array}{r} 89 \\ \times\ 45 \\ \hline \end{array}$ d. $\begin{array}{r} 43 \\ \times\ 98 \\ \hline \end{array}$ e. $\begin{array}{r} 89 \\ \times\ 20 \\ \hline \end{array}$

6. a. $\begin{array}{r} 80 \\ \times\ 15 \\ \hline \end{array}$ b. $\begin{array}{r} 75 \\ \times\ 80 \\ \hline \end{array}$ c. $\begin{array}{r} 60 \\ \times\ 42 \\ \hline \end{array}$ d. $\begin{array}{r} 18 \\ \times\ 49 \\ \hline \end{array}$ e. $\begin{array}{r} 26 \\ \times\ 12 \\ \hline \end{array}$

7. a. $\begin{array}{r} 63 \\ \times\ 17 \\ \hline \end{array}$ b. $\begin{array}{r} 50 \\ \times\ 25 \\ \hline \end{array}$ c. $\begin{array}{r} 99 \\ \times\ 88 \\ \hline \end{array}$ d. $\begin{array}{r} 49 \\ \times\ 27 \\ \hline \end{array}$ e. $\begin{array}{r} 33 \\ \times\ 42 \\ \hline \end{array}$

8. a. $\begin{array}{r} 15 \\ \times\ 14 \\ \hline \end{array}$ b. $\begin{array}{r} 12 \\ \times\ 42 \\ \hline \end{array}$ c. $\begin{array}{r} 11 \\ \times\ 20 \\ \hline \end{array}$ d. $\begin{array}{r} 93 \\ \times\ 37 \\ \hline \end{array}$ e. $\begin{array}{r} 41 \\ \times\ 80 \\ \hline \end{array}$

ASSIGNMENT SHEET #4

9. a. $\begin{array}{r} 46 \\ \times\ 38 \\ \hline \end{array}$ b. $\begin{array}{r} 26 \\ \times\ 22 \\ \hline \end{array}$ c. $\begin{array}{r} 98 \\ \times\ 65 \\ \hline \end{array}$ d. $\begin{array}{r} 87 \\ \times\ 29 \\ \hline \end{array}$ e. $\begin{array}{r} 41 \\ \times\ 88 \\ \hline \end{array}$

10. a. $\begin{array}{r} 55 \\ \times\ 27 \\ \hline \end{array}$ b. $\begin{array}{r} 42 \\ \times\ 31 \\ \hline \end{array}$ c. $\begin{array}{r} 57 \\ \times\ 87 \\ \hline \end{array}$ d. $\begin{array}{r} 99 \\ \times\ 99 \\ \hline \end{array}$ e. $\begin{array}{r} 80 \\ \times\ 96 \\ \hline \end{array}$

MULTIPLYING WHOLE NUMBERS
UNIT V

ASSIGNMENT SHEET #5 — MULTIPLY BY A THREE-DIGIT MULTIPLIER

NAME _____ SCORE _____

Find the product of each of the following.

1. a. 174 × 246 b. 275 × 832 c. 351 × 350 d. 485 × 164

2. a. 876 × 367 b. 564 × 459 c. 548 × 740 d. 318 × 176

3. a. 892 × 864 b. 719 × 396 c. 728 × 830 d. 654 × 951

ASSIGNMENT SHEET #5

4. a. $\begin{array}{r} 825 \\ \times\ 619 \\ \hline \end{array}$ b. $\begin{array}{r} 586 \\ \times\ 741 \\ \hline \end{array}$ c. $\begin{array}{r} 483 \\ \times\ 921 \\ \hline \end{array}$ d. $\begin{array}{r} 375 \\ \times\ 381 \\ \hline \end{array}$

5. a. $\begin{array}{r} 388 \\ \times\ 266 \\ \hline \end{array}$ b. $\begin{array}{r} 101 \\ \times\ 411 \\ \hline \end{array}$ c. $\begin{array}{r} 891 \\ \times\ 263 \\ \hline \end{array}$ d. $\begin{array}{r} 314 \\ \times\ 912 \\ \hline \end{array}$

6. a. $\begin{array}{r} 621 \\ \times\ 562 \\ \hline \end{array}$ b. $\begin{array}{r} 888 \\ \times\ 991 \\ \hline \end{array}$ c. $\begin{array}{r} 901 \\ \times\ 109 \\ \hline \end{array}$ d. $\begin{array}{r} 650 \\ \times\ 320 \\ \hline \end{array}$

ASSIGNMENT SHEET #5

7. a. $\begin{array}{r} 656 \\ \times\ 901 \\ \hline \end{array}$ b. $\begin{array}{r} 211 \\ \times\ 142 \\ \hline \end{array}$ c. $\begin{array}{r} 321 \\ \times\ 132 \\ \hline \end{array}$ d. $\begin{array}{r} 100 \\ \times\ 100 \\ \hline \end{array}$

8. a. $\begin{array}{r} 151 \\ \times\ 125 \\ \hline \end{array}$ b. $\begin{array}{r} 315 \\ \times\ 165 \\ \hline \end{array}$ c. $\begin{array}{r} 228 \\ \times\ 191 \\ \hline \end{array}$ d. $\begin{array}{r} 161 \\ \times\ 304 \\ \hline \end{array}$

9. a. $\begin{array}{r} 390 \\ \times\ 113 \\ \hline \end{array}$ b. $\begin{array}{r} 171 \\ \times\ 219 \\ \hline \end{array}$ c. $\begin{array}{r} 912 \\ \times\ 318 \\ \hline \end{array}$ d. $\begin{array}{r} 800 \\ \times\ 111 \\ \hline \end{array}$

ASSIGNMENT SHEET #5

10. a. $\begin{array}{r} 999 \\ \times\ 999 \\ \hline \end{array}$ b. $\begin{array}{r} 850 \\ \times\ 200 \\ \hline \end{array}$ c. $\begin{array}{r} 157 \\ \times\ 121 \\ \hline \end{array}$ d. $\begin{array}{r} 620 \\ \times\ 301 \\ \hline \end{array}$

MULTIPLYING WHOLE NUMBERS
UNIT V

ASSIGNMENT SHEET #6 — SOLVE STORY PROBLEMS

NAME _____ SCORE _____

Solve the following story problems. Show your work.

1. Cathy bought 5 boxes of nails. Each box held 50 pounds of nails. How many pounds of nails did Cathy have?

2. John bought 20 squares of shingles. Each square of shingles will cover 100 square feet. How many square feet will the shingles cover?

3. Bill built a rectangular floor for his rabbit hutch. The hutch is 3 feet wide by 4 feet long. How many square feet of lumber did he need?

ASSIGNMENT SHEET #6

4. John has a stack of two-by-fours. The stack is 36 boards wide and 17 boards high. How many two-by-fours does John have?

5. Sally needs 4 boards, 3 feet long out of a piece of lumber with no scraps left over. How long will the required piece of lumber be?

6. Billy bought 2 pounds of #4 box nails for 30 cents a pound, and 10 feet of quarter round at 24 cents a running foot. How much was his lumber bill? (First multiply, then add.)

ASSIGNMENT SHEET #6

7. Roy built two floors. One floor was 6 feet by 4 feet and the other floor was 12 feet by 6 feet. How many square feet of lumber did Roy use?

8. What is the total length of 25 pieces of wood lathe, each 22 inches long?

9. Determine the total wall area of a square room if each wall has an area of 357 square feet?

ASSIGNMENT SHEET #6

10. A man places 63 lineal feet of joists per hour. How many feet can be placed in 8 hours?

MULTIPLYING WHOLE NUMBERS
UNIT V

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

1.	a. 12	b. 24	c. 16	d. 24	e. 0	f. 0
2.	a. 8	b. 14	c. 21	d. 18	e. 15	f. 6
3.	a. 0	b. 18	c. 7	d. 54	e. 48	f. 63
4.	a. 9	b. 2	c. 7	d. 6	e. 3	f. 64
5.	a. 28	b. 56	c. 35	d. 21	e. 72	f. 28
6.	a. 0	b. 5	c. 0	d. 20	e. 8	f. 0
7.	a. 15	b. 2	c. 12	d. 27	e. 24	f. 20
8.	a. 81	b. 8	c. 63	d. 40	e. 40	f. 0
9.	a. 0	b. 8	c. 4	d. 9	e. 1	f. 18
10.	a. 30	b. 36	c. 56	d. 30	e. 24	f. 42
11.	a. 0	b. 18	c. 10	d. 9	e. 5	f. 12
12.	a. 27	b. 0	c. 0	d. 32	e. 0	f. 12
13.	a. 0	b. 5	c. 32	d. 16	e. 16	f. 0
14.	a. 0	b. 6	c. 6	d. 25	e. 4	f. 49
15.	a. 36	b. 42	c. 10	d. 54	e. 45	f. 45
16.	a. 36	b. 0	c. 3	d. 72	e. 4	f. 48
17.	a. 0	b. 14	c. 0	d. 35		

Assignment Sheet #2

1.	40	16. 70	31. 90
2.	50	17. 410	32. 200
3.	120	18. 130	33. 270
4.	460	19. 3,100	34. 1,100
5.	4,820	20. 1,370	35. 2,300
6.	300	21. 500	36. 400
7.	700	22. 200	37. 1,000
8.	1,400	23. 7,000	38. 8,300
9.	7,300	24. 14,300	39. 700,000
10.	40,000	25. 23,000	40. 73,000
11.	1,000	26. 2,000	41. 7,000
12.	8,000	27. 4,000	42. 20,000
13.	36,000	28. 67,000	43. 32,000
14.	26,000	29. 100,000	44. 127,000
15.	167,000	30. 128,000	45. 782,000

Assignment Sheet #3

1.	a. 212	b. 96	c. 104	d. 328	e. 228
2.	a. 684	b. 2,265	c. 624	d. 3,515	e. 1,977
3.	a. 19,470	b. 3,609	c. 9,684	d. 25,515	e. 30,492

ANSWERS TO ASSIGNMENT SHEETS

4.	a.	3,367	b.	22,548	c.	17,024	d.	5,448	e. 31,473
5.	a.	2,700	b.	8,912	c.	1,368	d.	1,445	e. 2,112
6.	a.	3,012	b.	11,673	c.	23,992	d.	9,219	e. 428
7.	a.	1,860	b.	4,123	c.	18,408	d.	3,928	e. 453
8.	a.	14,850	b.	4,750	c.	6,488	d.	2,550	e. 3,720
9.	a.	12,712	b.	16,101	c.	404	d.	222	e. 15,160
10.	a.	6,678	b.	2,480	c.	728,920	d.	119,744	e. 480,000

Assignment Sheet #4

1.	a.	2,394	b.	2,210	c.	1,664	d.	1,932	e. 4,672
2.	a.	2,590	b.	5,130	c.	2,881	d.	1,728	e. 3,034
3.	a.	3,024	b.	3,397	c.	5,704	d.	5,695	e. 2,291
4.	a.	6,794	b.	5,848	c.	5,251	d.	2,736	e. 4,161
5.	a.	4,482	b.	6,164	c.	4,005	d.	4,214	e. 1,780
6.	a.	1,200	b.	6,000	c.	2,520	d.	882	e. 312
7.	a.	1,071	b.	1,250	c.	8,712	d.	1,323	e. 1,386
8.	a.	210	b.	504	c.	220	d.	3,441	e. 3,280
9.	a.	1,748	b.	572	c.	6,370	d.	2,523	e. 3,608
10.	a.	1,485	b.	1,302	c.	4,959	d.	9,801	e. 7,680

Assignment Sheet #5

1.	a.	42,804	b.	228,800	c.	122,850	d.	79,540
2.	a.	321,492	b.	258,876	c.	405,520	d.	55,968
3.	a.	770,688	b.	284,724	c.	604,240	d.	621,954
4.	a.	510,675	b.	434,226	c.	444,843	d.	142,875
5.	a.	103,208	b.	41,511	c.	234,333	d.	286,368
6.	a.	349,002	b.	880,008	c.	98,209	d.	208,000
7.	a.	591,056	b.	29,962	c.	42,372	d.	10,000
8.	a.	18,875	b.	51,975	c.	43,548	d.	48,944
9.	a.	44,070	b.	37,449	c.	290,016	d.	88,800
10.	a.	998,001	b.	170,000	c.	18,997	d.	186,620

Assignment Sheet #6

1. 250 pounds of nails
2. 2,000 square feet
3. 12 square feet
4. 612 boards
5. 12 feet long
6. $3.00
7. 96 square feet
8. 550 inches
9. 1,428 square feet
10. 504 feet

MULTIPLYING WHOLE NUMBERS
UNIT V

TEST

NAME _____ SCORE _____

1. Define the following terms.

   a. Multiplier — _____

   b. Multiplicand — _____

   c. Product — _____

   d. Multiplication fact — _____

2. Solve the following problems.

   a. 8 x 10 =

   b. 24 x 10 =

   c. 386 x 10 =

   d. 7 x 100 =

   e. 87 x 100 =

   f. 123 x 100 =

   g. 9 x 1,000 =

   h. 98 x 1,000 =

   i. 765 x 1,000 =

TEST

3. Solve the following problems.

a. $\begin{array}{r} 34 \\ \times\ 28 \\ \hline \end{array}$

b. $\begin{array}{r} 75 \\ \times\ 39 \\ \hline \end{array}$

c. $\begin{array}{r} 758 \\ \times\ 270 \\ \hline \end{array}$

d. $\begin{array}{r} 968 \\ \times\ 375 \\ \hline \end{array}$

e. $\begin{array}{r} 65 \\ \times\ 04 \\ \hline \end{array}$

f. $\begin{array}{r} 619 \\ \times\ 004 \\ \hline \end{array}$

4. Solve the following story problems. Show your work.

a. A snack bar owner lets the counter workers drink all the soft drinks they want on days that they work. The soft drinks sell for 45¢. In one week Paula had 13 drinks. What was the value of the free drinks that Paula drank?

TEST

b. Sally bought 4 packages of napkins. Each package of napkins contains 48 napkins. How many napkins did Sally have?

c. The instructor gave each of 24 students 26 utensils to clean. How many utensils did the instructor give the students to clean in all?

d. If containers each weigh 4 pounds, how much would 8 containers weigh?

MULTIPLYING WHOLE NUMBERS
UNIT V

ANSWERS TO TEST

1. a. Number that does the multiplying
   b. Number that is multiplied
   c. Answer or result of multiplication
   d. Basic statement in multiplication

2. a. 80
   b. 240
   c. 3,860
   d. 700
   e. 8,700
   f. 12,300
   g. 9,000
   h. 98,000
   i. 765,000

3. a. 952
   b. 2,925
   c. 204,660
   d. 363,000
   e. 260
   f. 2,476

4. a. $5.85
   b. 192 napkins
   c. 624 utensils
   d. 32 pounds

DIVIDING WHOLE NUMBERS
UNIT VI

UNIT OBJECTIVE

After completing this unit, the student should be able to solve a division problem with a one-, two-, or three-digit divisor, and solve story problems requiring division involving whole numbers. This knowledge will be evidenced by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Identify the divisor, dividend, quotient, and remainder in a division problem.
2. Solve problems with one-, two-, or three-digit divisors for the quotient and remainder (if any).
3. Solve story problems requiring division.

DIVIDING WHOLE NUMBERS
UNIT VI

SUGGESTED ACTIVITIES

I. Unit contents

A. Objective sheet

B. Suggested activities

C. Supplement #1 — The 64 Division Facts

D. Pretest

E. Answers to pretest

F. Information sheet

G. Assignment sheets

1. Assignment Sheet #1 — Solve Problems with One-Digit Divisors
2. Assignment Sheet #2 — Solve Problems with Two-Digit Divisors
3. Assignment Sheet #3 — Solve Problems with One- and Two-Digit Divisors
4. Assignment Sheet #4 — Solve Problems with Two- and Three-Digit Divisors
5. Assignment Sheet #5 — Solve Story Problems

H. Answers to assignment sheets

I. Test

J. Answers to test

II. Instructor's guide

A. Order (or obtain) materials to supplement unit.

B. Give pretest.

C. Critique pretest and go over results in class.

(NOTE: Be sure to take up pretests after discussing them in class. Students who score 85 percent or higher on the pretest do not need to study this unit.)

D. Provide students with copies of unit.

SUGGESTED ACTIVITIES

E. Discuss unit and specific objectives.

F. Discuss information and assignment sheets.

1. Use Information Sheet, Section I, to discuss terms and definitions associated with understanding division of whole numbers.

2. Have students practice the division facts using Supplement #1.

3. Demonstrate how to divide whole numbers by using Information Sheet, Section II.

- Put examples on the chalkboard to demonstrate the procedure to the students.
- Have students work on sample problems at the chalkboard.
- Have students complete Assignment Sheets #1 through #5.
- Discuss assignment sheets in class.

G. Give test.

H. Critique test and discuss answers in class.

I. Reteach and retest as necessary.

III. Unit reference — Spann, Margaret. *Related Vocational Math*. Stillwater, Oklahoma: Oklahoma State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1972.

DIVIDING WHOLE NUMBERS
UNIT VI

SUPPLEMENT #1 — THE 64 DIVISION FACTS

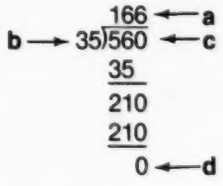
4 ÷ 2 = 2	6 ÷ 2 = 3	8 ÷ 2 = 4	10 ÷ 2 = 5
12 ÷ 2 = 6	14 ÷ 2 = 7	16 ÷ 2 = 8	18 ÷ 2 = 9
6 ÷ 3 = 2	9 ÷ 3 = 3	12 ÷ 3 = 4	15 ÷ 3 = 5
18 ÷ 3 = 6	21 ÷ 3 = 7	24 ÷ 3 = 8	27 ÷ 3 = 9
8 ÷ 4 = 2	12 ÷ 4 = 3	16 ÷ 4 = 4	20 ÷ 4 = 5
24 ÷ 4 = 6	28 ÷ 4 = 7	32 ÷ 4 = 8	36 ÷ 4 = 9
10 ÷ 5 = 2	15 ÷ 5 = 3	20 ÷ 5 = 4	25 ÷ 5 = 5
30 ÷ 5 = 6	35 ÷ 5 = 7	40 ÷ 5 = 8	45 ÷ 5 = 9
12 ÷ 6 = 2	18 ÷ 6 = 3	24 ÷ 6 = 4	30 ÷ 6 = 5
36 ÷ 6 = 6	42 ÷ 6 = 7	48 ÷ 6 = 8	54 ÷ 6 = 9
14 ÷ 7 = 2	21 ÷ 7 = 3	28 ÷ 7 = 4	35 ÷ 7 = 5
42 ÷ 7 = 6	49 ÷ 7 = 7	56 ÷ 7 = 8	63 ÷ 7 = 9
16 ÷ 8 = 2	24 ÷ 8 = 3	32 ÷ 8 = 4	40 ÷ 8 = 5
48 ÷ 8 = 6	56 ÷ 8 = 7	64 ÷ 8 = 8	72 ÷ 8 = 9
18 ÷ 9 = 2	27 ÷ 9 = 3	36 ÷ 9 = 4	45 ÷ 9 = 5
54 ÷ 9 = 6	63 ÷ 9 = 7	72 ÷ 9 = 8	81 ÷ 9 = 9

DIVIDING WHOLE NUMBERS
UNIT VI

PRETEST

NAME _____ SCORE _____

1. Identify the parts of the following problem. Write the names in the blanks.



a. _____

b. _____

c. _____

d. _____

2. Solve the following division problems. Show your work and check your answers.

a. $2\overline{)8}$ b. $7\overline{)21}$ c. $9\overline{)18}$

d. $6\overline{)144}$ e. $4\overline{)1568}$ f. $10\overline{)7940}$

PRETEST

g. $29\overline{)1334}$ h. $33\overline{)1947}$ i. $45\overline{)3060}$

j. $57\overline{)5358}$ k. $286\overline{)6864}$ l. $924\overline{)53,408}$

m. $568\overline{)38,624}$ n. $74\overline{)6586}$ o. $92\overline{)7084}$

3. Solve the following story problems. Show your work and check your answers.

   a. Lucille had saved 1,380 pennies. She decided to divide the pennies equally and give them to her 12 friends. How many pennies would each friend receive?

PRETEST

b. Brandon works for a computer company 8 hours a day, 5 days a week. His take home pay before taxes is $920 for a week. How much is his hourly wage?

c. The store manager has 5,680 cans of fruit juice to sell and 8 days to sell them. How many cans will he need to sell each day?

d. Michelle saved $1,480 for her vacation. In 5 days she was broke. How much money did she spend each day?

e. Anita was given $7,989 to purchase material for graduation dresses. The material she selected cost $15 a yard.

1) How many yards could she purchase?

2) How much money will she have left?

DIVIDING WHOLE NUMBERS
UNIT VI

ANSWERS TO PRETEST

1. a. Quotient
   b. Divisor
   c. Dividend
   d. Remainder

2. a. 4
   b. 3
   c. 2
   d. 24
   e. 392
   f. 794
   g. 46
   h. 59
   i. 68
   j. 94
   k. 24
   l. 57 R 740
   m. 68
   n. 89
   o. 77

3. a. 115 pennies
   b. $23 an hour
   c. 710 cans
   d. $296
   e. 1) 532 yards
      2) $9

DIVIDING WHOLE NUMBERS
UNIT VI

INFORMATION SHEET

I. Terms and definitions

A. Divisor — Number by which you divide

B. Divident — Number that is divided

C. Quotient — Answer to a division problem

D. Remainder — Number that is left over when division is completed

E. $)\overline{}$ — Division sign

(NOTE: Another sign for division is ÷. It is read *divided by*. 8 ÷ 2 = 4 would read: eight divided by two equals four.)

EXAMPLE:

```
                451  ← Quotient
Divisor → 8)3609  ← Dividend
           32
           ---
           40
           40
           ---
            09
             8
            --
             1  ← Remainder
```

II. Dividing whole numbers

A. Dividing with one-digit divisor

1. Write the dividend within the division bracket, and the divisor outside to the left

   EXAMPLE: $7\overline{)856}$

2. Estimate how many times the divisor will go into the first digit of the dividend; this is the trial quotient

   EXAMPLE: 7 will go into 8 one time; 1 is the trial quotient.

INFORMATION SHEET

3. Write the trial quotient above the first digit of the dividend

   EXAMPLE:
   $$\begin{array}{r} 1 \\ 7\overline{)856} \end{array}$$

4. Multiply the divisor by the trial quotient; write the product directly beneath the first digit of the dividend

   (NOTE: If the product obtained is larger than the first digit of the dividend, the trial quotient is too large; try the next lower number.)

   EXAMPLE:
   $$\begin{array}{r} 1 \\ 7\overline{)856} \\ 7 \end{array}$$

5. Subtract the product from the first digit of the dividend; write the answer directly beneath

   EXAMPLE:
   $$\begin{array}{r} 1 \\ 7\overline{)856} \\ -\,7 \\ \hline 1 \end{array}$$

6. Bring down the next digit of the dividend; write it beside the answer to the subtraction

   EXAMPLE:
   $$\begin{array}{r} 1 \\ 7\overline{)856} \\ -\,7 \\ \hline 15 \end{array}$$

7. Determine how many times the divisor will go into the resulting number; write the answer directly above in the quotient

   EXAMPLE:
   $$\begin{array}{r} 12 \\ 7\overline{)856} \\ -\,7 \\ \hline 15 \end{array}$$

INFORMATION SHEET

8. Multiply the second digit of the quotient by the divisor; write the answer in the correct columns under the problem; subtract

EXAMPLE:
$$\begin{array}{r} 12 \\ 7\overline{)856} \\ -\,7 \\ \hline 15 \\ -\,14 \\ \hline 1 \end{array}$$

9. Bring down the next number of the dividend

EXAMPLE:
$$\begin{array}{r} 12 \\ 7\overline{)856} \\ -\,7 \\ \hline 15 \\ -\,14 \\ \hline 16 \end{array}$$

10. Determine how many times the divisor will go into the resulting number; write the answer directly above in the quotient

EXAMPLE:
$$\begin{array}{r} 122 \\ 7\overline{)856} \\ -\,7 \\ \hline 15 \\ -\,14 \\ \hline 16 \end{array}$$

11. Multiply the last number in the quotient by the divisor; write below and subtract

(NOTE: These steps may be repeated to divide numbers of any length.)

EXAMPLE:
$$\begin{array}{r} 122 \\ 7\overline{)856} \\ -\,7 \\ \hline 15 \\ -\,14 \\ \hline 16 \\ -\,14 \\ \hline 2 \end{array}$$

INFORMATION SHEET

12. Write the remainder (if any) beside the quotient

(NOTE: The number left over after division is complete is the remainder.)

EXAMPLE:
$$\begin{array}{r} 122 \text{ R } 2 \\ 7\overline{)856} \\ -\,7 \\ \hline 15 \\ -\,14 \\ \hline 16 \\ -\,14 \\ \hline 2 \end{array}$$

B. Dividing with two- or three-digit divisors

1. Write the problem

EXAMPLE: $82\overline{)1821}$

2. Determine the trial quotient

EXAMPLE: How many times will 82 go into 182? Since 8 goes into 16 twice, 2 would be a good trial quotient.

3. Write the answer in the correct column in the quotient

(NOTE: It is extremely important to keep the ones, tens, hundreds, etc. columns aligned to obtain a correct answer.)

EXAMPLE:
$$\begin{array}{r} 2 \\ 82\overline{)1821} \end{array}$$

4. Multiply the divisor by the number in the quotient; write the product beneath the dividend in the proper columns and subtract

EXAMPLE:
$$\begin{array}{r} 2 \\ 82\overline{)1821} \\ -\,164 \\ \hline 18 \end{array}$$

5. Bring down the next number of the dividend

EXAMPLE:
$$\begin{array}{r} 2 \\ 82\overline{)1821} \\ -\,164 \\ \hline 181 \end{array}$$

INFORMATION SHEET

6. Determine how many times the divisor will go into the resulting number; write this in the quotient, then multiply it by the divisor and subtract

EXAMPLE:
```
      22
82 )1821
   -164
    181
   -164
     17
```

7. Continue this procedure until no more division is possible; write the remainder (if any) next to the quotient

EXAMPLE:
```
      22  R 17
82 )1821
   -164
    181
   -164
     17
```

C. Checking division

1. Multiply the quotient by the divisor
2. Add the remainder to the product
3. Compare the sum to the dividend; when the division is correct, they will be equal

(NOTE: If the two numbers are not equal, first recheck the steps in the checking process. Next, if necessary, rework the division problem.)

EXAMPLE:
```
      22  R 17          22   (Quotient)
82 )1821               x 82   (Divisor)
                       ----
                        44
                       176
                       ----
                      1804
                      + 17   (Remainder)
                      ----
                      1821   (Equal to dividend)
```

INFORMATION SHEET

III. Solving story problems

A. Determine what items need to be divided; write as a division problem

B. Solve the problem to find the quotient

C. Write the answer being sure to label it with the correct term

EXAMPLES: Dollars, nails, cookies

DIVIDING WHOLE NUMBERS
UNIT VI

ASSIGNMENT SHEET #1 — SOLVE PROBLEMS WITH ONE-DIGIT DIVISORS

NAME _____ SCORE _____

Solve the following division problems. Show your work.

1. $3\overline{)6}$
2. $7\overline{)21}$
3. $5\overline{)225}$
4. $6\overline{)3600}$
5. $5\overline{)5}$
6. $4\overline{)16}$
7. $3\overline{)18}$
8. $9\overline{)81}$
9. $2\overline{)624}$
10. $8\overline{)4080}$
11. $9\overline{)108}$
12. $8\overline{)136}$

ASSIGNMENT SHEET #1

13. $7\overline{)49}$

14. $3\overline{)813}$

15. $4\overline{)48}$

16. $3\overline{)750}$

17. $5\overline{)830}$

18. $2\overline{)6704}$

19. $3\overline{)1206}$

20. $9\overline{)279}$

DIVIDING WHOLE NUMBERS
UNIT VI

ASSIGNMENT SHEET #2 — SOLVE PROBLEMS WITH TWO-DIGIT DIVISORS

NAME _____ SCORE _____

Solve the following division problems. Show your work.

1. $12\overline{)24}$
2. $30\overline{)90}$
3. $66\overline{)198}$
4. $15\overline{)60}$
5. $23\overline{)276}$
6. $19\overline{)152}$
7. $86\overline{)1032}$
8. $11\overline{)121}$
9. $35\overline{)1225}$

ASSIGNMENT SHEET #2

10. $52\overline{)468}$

11. $73\overline{)1095}$

12. $20\overline{)400}$

13. $47\overline{)1175}$

14. $79\overline{)632}$

15. $99\overline{)396}$

DIVIDING WHOLE NUMBERS
UNIT VI

ASSIGNMENT SHEET #3 — SOLVE PROBLEMS WITH ONE- AND TWO-DIGIT DIVISORS

NAME _____ SCORE _____

Solve the following division problems. Show your work.

1. $9\overline{)84}$
2. $7\overline{)53}$
3. $4\overline{)32}$
4. $14\overline{)30}$
5. $25\overline{)105}$
6. $14\overline{)40}$
7. $71\overline{)840}$
8. $90\overline{)100}$
9. $80\overline{)160}$

ASSIGNMENT SHEET #3

10. $27\overline{)80}$

11. $37\overline{)402}$

12. $82\overline{)70}$

13. $13\overline{)72}$

14. $39\overline{)80}$

15. $52\overline{)97}$

16. $84\overline{)927}$

17. $40\overline{)782}$

18. $84\overline{)972}$

ASSIGNMENT SHEET #3

19. $34\overline{)367}$

20. $22\overline{)482}$

DIVIDING WHOLE NUMBERS
UNIT VI

ASSIGNMENT SHEET #4 — SOLVE PROBLEMS WITH TWO- AND THREE-DIGIT DIVISORS

NAME _____ SCORE _____

Solve the following division problems. Show your work and check your answers.

1. $29\overline{)851}$
2. $62\overline{)7739}$
3. $28\overline{)5212}$
4. $34\overline{)5950}$
5. $17\overline{)8364}$
6. $71\overline{)18,318}$
7. $43\overline{)10,965}$
8. $56\overline{)7616}$
9. $92\overline{)30,084}$

ASSIGNMENT SHEET #4

10. $37\overline{)26,679}$

11. $7\overline{)4228}$

12. $15\overline{)24,090}$

13. $15\overline{)4530}$

14. $26\overline{)52,260}$

15. $13\overline{)91,169}$

16. $34\overline{)17,238}$

17. $36\overline{)10,080}$

18. $17\overline{)53,040}$

ASSIGNMENT SHEET #4

19. $321\overline{)110{,}424}$

20. $417\overline{)12{,}093}$

21. $558\overline{)65{,}844}$

22. $713\overline{)161{,}149}$

23. $308\overline{)165{,}432}$

DIVIDING WHOLE NUMBERS
UNIT VI

ASSIGNMENT SHEET #5 — SOLVE STORY PROBLEMS

NAME _____ SCORE _____

Solve the following story problems. Show your work and check your answers.

1. Jack put 12 quarts of transmission fluid in his father's car. How many gallons of fluid did he use? (1 gallon = 4 quarts)

2. Lloyd had 65 tools. He placed them in 5 equal piles. How many tools were in each pile?

3. If Stanley reads 7 pages from the shop textbook each day, how many days will it take to read 91 pages?

ASSIGNMENT SHEET #5

4. The instructor divided 75 tools equally among 5 students. How many tools did each student receive?

5. Beth opened a box of drill bits and divided them equally among 8 boys. If the box contained 144 bits, how many drill bits did each boy receive?

6. Tom needs a board 72 inches long and Beth needs a board 60 inches long. How many feet of lumber do they need together? (12 inches = 1 foot)

ASSIGNMENT SHEET #5

7. David needs a piece of plate steel 72 inches long and he only has a piece of steel 12 inches long. How many more feet of steel does he need?

8. A supervisor was given $2780 to buy tools. Each tool cost $15.

   a. How many tools did he buy?

   b. How much money was left?

9. How many gross of ½" bolts can be bought for $195; if the cost per gross is $5?

ASSIGNMENT SHEET #5

10. A machinist's paycheck before deductions is $160. He works 5 days a week, 8 hours a day. What is his hourly wage?

11. If 26 bags of lime cost $104, what is the cost of one bag?

12. A mason contracted to furnish and pour 23 cubic yards of concrete for $276. What was the charge per cubic yard?

ASSIGNMENT SHEET #5

13. Four bricklayers working together laid 4,240 bricks in a wall in one day. What was the average number of bricks laid by each bricklayer for the day?

14. How many 250-foot rolls of BX wiring are required on a job requiring 6250 feet?

15. A certain machine room used 2460 watts for bench lighting. All of these were used by 60 watt lamps. How many lamps were connected?

ASSIGNMENT SHEET #5

16. A total load of 15,864 watts is distributed equally over 24 circuits. What is the load per circuit in watts?

17. A hotel with 22 rooms on each of the 8 floors has 528 outlets. If each room has the same number of outlets, how many are there in each room?

18. A carpenter completed a job in 16 hours. Wages and materials for the job were $176. If the material alone cost $128, how much did the worker earn per hour in wages?

ASSIGNMENT SHEET #5

19. A supervisor has been given $1480 to spend for construction tools. She bought tools that cost $16 each.

    a. How many of these tools can be buy?

    b. How much money will he have left?

20. Two carpenters worked a total of 320 hours on a job. If they each worked 8 hours a day, 5 days a week, how many weeks did the job take?

21. A finisher had to sew 9 buttons on each dress that was made. If he sewed 2151 buttons, how many dresses did he finish?

ASSIGNMENT SHEET #5

22. In a project, 17 girls completed 136 knit shirts. How many shirts did each of the girls complete?

23. The home economics class used 12 quarts of milk to make cookies. How many gallons of milk did they use? (1 gallon = 4 quarts)

24. An institution pack of frozen vegetables will serve about 30 people. How many packs would be needed for 180 servings?

ASSIGNMENT SHEET #5

25. A school used 8,400 half-pints of milk in 21 days. What was the daily amount used?

26. If there are 30 dozen eggs to a case, how many people can be served from one case, allowing 2 eggs for each serving?

27. If 23 yards of material cost $92, what is the cost per yard?

ASSIGNMENT SHEET #5

28. The supervisor in a sewing factory was given $983 to spend for tools that cost $12 each.

    a. How many tools could she buy?

    b. How much money does she have left?

29. How many 36-yard bolts of material are needed for a job that requires 396 yards?

30. A seamstress' weekly paycheck before deductions is $480. She works 4 days a week, 10 hours a day. What is her hourly wage?

DIVIDING WHOLE NUMBERS
UNIT VI

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

1. 2
2. 3
3. 45
4. 600
5. 1
6. 4
7. 6
8. 9
9. 312
10. 510
11. 12
12. 17
13. 7
14. 271
15. 12
16. 250
17. 166
18. 3352
19. 402
20. 31

Assignment Sheet #2

1. 2
2. 3
3. 3
4. 4
5. 12
6. 8
7. 12
8. 11
9. 35
10. 9
11. 15
12. 20
13. 25
14. 8
15. 4

Assignment Sheet #3

1. 9 R3
2. 7 R4
3. 8
4. 2 R2
5. 4 R5
6. 2 R12
7. 11 R59
8. 1 R10
9. 2
10. 2 R26
11. 10 R32
12. 0 R70
13. 5 R7
14. 2 R2
15. 1 R45
16. 11 R3
17. 19 R22
18. 11 R48
19. 10 R27
20. 21 R20

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #4

1. 29 R10
2. 124 R51
3. 186 R4
4. 175
5. 492
6. 258
7. 255
8. 136
9. 327
10. 721 R2
11. 604
12. 1606
13. 302
14. 2010
15. 7013
16. 507
17. 280
18. 3120
19. 344
20. 29
21. 118
22. 226 R11
23. 537 R36

Assignment Sheet #5

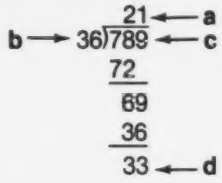
1. 3 gallons
2. 13 tools
3. 13 days
4. 15 tools
5. 18 drill bits
6. 11 feet
7. 5 feet
8. a. 185 tools
   b. $5
9. 39 gross
10. $4
11. $4
12. $12
13. 1060 bricks
14. 25 rolls
15. 41 lamps
16. 661 watts
17. 3 outlets
18. $3
19. a. 92 tools
    b. $8
20. 4 weeks
21. 239 dresses
22. 8 shirts
23. 3 gallons
24. 6 packs
25. 400 half-pints
26. 180 people
27. $4
28. a. 81 tools
    b. $11
29. 11 bolts
30. $12

DIVIDING WHOLE NUMBERS
UNIT VI

TEST

NAME _____ SCORE _____

1. Identify the parts of the following problem. Write the names in the blanks.



a. _____

b. _____

c. _____

d. _____

2. Solve the following problems. Show your work and check your answers.

a. $6\overline{)60}$ b. $3\overline{)132}$ c. $4\overline{)5324}$

d. $6\overline{)108}$ e. $3\overline{)132}$ f. $44\overline{)440}$

TEST

g. $23\overline{)161}$ h. $12\overline{)147}$ i. $13\overline{)146}$

j. $30\overline{)3604}$ k. $12\overline{)5424}$ l. $333\overline{)1007}$

m. $273\overline{)6006}$ n. $321\overline{)110{,}424}$ o. $125\overline{)172{,}482}$

3. Solve the following story problems. Show your work and check your answers.

   a. How many 8-foot sections of steel can Bill get from a 20-foot sucker rod?

TEST

b. Bill divided 234 bolts into 18 equal piles. How many piles did he have?

c. Ann needs a board 72 inches long and Bill needs a board 60 inches long. How many feet of lumber do both of the workers need together? (12 inches = 1 foot)

DIVIDING WHOLE NUMBERS
UNIT VI

ANSWERS TO TEST

1. a. Divisor
   b. Quotient
   c. Dividend
   d. Remainder

2. a. 10
   b. 44
   c. 1331
   d. 18
   e. 44
   f. 10
   g. 7
   h. 12 R3
   i. 11 R3
   j. 120 R4
   k. 452
   l. 3 R8
   m. 22
   n. 344
   o. 1379 R107

3. a. 2 sections (with 4 feet left over)
   b. 13 piles
   c. 11 feet

REVIEWING WHOLE NUMBERS
UNIT VII

UNIT OBJECTIVE

After completing this unit, the student should be able to solve problems involving the four basic operations of whole numbers, give the place values of a six digit number, write a numeral for a word number and a word number for a numeral, and round off whole numbers up to thousands. This knowledge will be evidenced by completing assignment sheets and unit test with a minimum score of 85 percent.

SPECIFIC OBJECTIVES

After completing this unit, the student should be able to

1. Identify the parts of subtraction, addition, division, and multiplication problems.
2. Name the place values in a six-digit numeral.
3. Write a numeral for a word number and a word number for a numeral.
4. Round numbers to the nearest tens, hundreds or thousands.
5. Solve addition, subtraction, multiplication and division problems.
6. Solve story problems using addition, subtraction, multiplication and division.

REVIEWING WHOLE NUMBERS
UNIT VII

SUGGESTED ACTIVITIES

I. Unit contents

A. Objective sheet

B. Suggested activities

C. Information sheet

D. Assignment sheets

1. Assignment Sheet #1 — Review Place Value
2. Assignment Sheet #2 — Review Rounding
3. Assignment Sheet #3 — Review Addition
4. Assignment Sheet #4 — Review Subtraction
5. Assignment Sheet #5 — Review Multiplication
6. Assignment Sheet #6 — Review Division

E. Answers to assignment sheets

F. Test

G. Answers to test

II. Instructor's guide

A. Order (or obtain) materials to supplement unit.

B. Provide students with copies of unit.

C. Discuss unit and specific objectives.

- Explain that this is a review of all the work on whole numbers completed in class.
- Explain that students will have a comprehensive test at the end of the review.

D. Discuss information and assignment sheets.

1. Use Information Sheet, Section I, to review terms and definitions associated with whole numbers.

SUGGESTED ACTIVITIES

2. Review place value and word numbers of whole numbers using Information Sheet, Sections II and III.
   - Have students complete Assignment Sheet #1.
   - Go over answers and discuss in class.
3. Review rounding of whole numbers using Information Sheet, Section IV.
   - Have students complete Assignment Sheet #2.
   - Discuss the answers in class.
4. Review addition, subtraction, multiplication and division of whole numbers using Information Sheet, Section V.
   - Have students complete Assignment Sheets #3 through #6.
   - Check and discuss the answers in class.

E. Give test.

F. Critique test and discuss answers in class.

G. Review sections and retest as necessary.

III. Unit reference — Spann, Margaret. *Related Vocational Math*. Stillwater, Oklahoma: Oklahoma State Department of Vocational and Technical Education/Curriculum and Instructional Materials Center, 1972.

REVIEWING WHOLE NUMBERS
UNIT VII

INFORMATION SHEET

I. Terms and definitions

A. Addends — Numbers that are added together

B. Sum or total — Answer to an addition problem

EXAMPLE:

$$\begin{array}{rl} 12 & \text{(Addend)} \\ +\ 34 & \text{(Addend)} \\ \hline 46 & \text{(Sum)} \end{array}$$

C. Minuend — Number from which another number is being subtracted

D. Subtrahend — Number which is being subtracted

E. Difference — Answer to a subtraction problem

EXAMPLE:

$$\begin{array}{rl} 34 & \text{(Minuend)} \\ -\ 12 & \text{(Subtrahend)} \\ \hline 22 & \text{(Difference)} \end{array}$$

F. Multiplicand — Number which is being multiplied

G. Multiplier — Number which is doing the multiplying

H. Product — Answer to a multiplication problem

EXAMPLE:

$$\begin{array}{rl} 34 & \text{(Multiplicand)} \\ \times\ 12 & \text{(Multiplier)} \\ \hline 68 & \\ 34 & \\ \hline 408 & \text{(Product)} \end{array}$$

I. Divisor — Number by which you divide

J. Dividend — Number that is divided

K. Quotient — Answer to a division problem

INFORMATION SHEET

L. Remainder — Number that is left over when division is completed

EXAMPLE:

```
          2   (Quotient)
(Divisor) 12)34  (Dividend)
         24
         10  (Remainder)
```

II. Place value

Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones
1,	0	0	0,	0	0	0

A. Columns increase from right to left: ones, tens, hundreds, thousands, ten thousands, hundred thousands, millions, and so on

B. Numbers are read from right to left

EXAMPLE: The number 1,143,285 is read one million, one hundred forty-three thousand, two hundred eighty-five.

III. Word numbers

A. Each numeral is represented by a word number

B. Word numbers can be written as numerals

EXAMPLES: 14 is fourteen; sixty-seven is 67.

IV. Rounding numbers

A. To nearest ten — Look at ones column; if 5 or over, round up; if less than 5, round down

EXAMPLE: 14,827 rounded to the nearest ten is 14,830.

B. To nearest hundred — Look at tens column; if 5 or over, round up; if less than 5, round down

EXAMPLE: 14,827 rounded to the nearest hundred is 14,800.

INFORMATION SHEET

C. To nearest thousand — Look at hundreds column; if 5 or over, round up; if less than 5 round down

EXAMPLE: 14,827 rounded to the nearest thousand is 15,000.

V. Basic operations

A. Addition

1. Write addends below one another being careful to align columns correctly

2. Add columns from right to left, carrying when necessary

EXAMPLE:
```
  486
   21
+ 1213
------
 1720
```

B. Subtraction

1. Write subtrahend below minuend being careful to align columns correctly

2. Subtract columns from right to left, borrowing when necessary

EXAMPLE:
```
 4017
- 141
------
 3876
```

C. Multiplication

1. Write multiplier below multiplicand; align columns correctly

2. Multiply from right to left, carefully aligning partial product and product; carry when necessary

EXAMPLE:
```
  143
x  49
------
 1287
 572
------
 7007
```

D. Division

1. Write divisor outside of bracket and dividend inside of bracket

INFORMATION SHEET

2. Divide from left to right, aligning all work in proper columns

EXAMPLE:

$$
\begin{array}{r}
13 \\
12\overline{)156} \\
\underline{12} \\
36 \\
\underline{36} \\
0
\end{array}
$$

REVIEWING WHOLE NUMBERS
UNIT VII

ASSIGNMENT SHEET #1 — REVIEW PLACE VALUE

NAME _____ SCORE _____

1. Write the place value of each digit in the number 678,924.

   a. 6 — _____

   b. 7 — _____

   c. 8 — _____

   d. 9 — _____

   e. 2 — _____

   f. 4 — _____

2. Write the numeral for each of the following word numbers.

   a. One hundred two _____

   b. Three hundred forty-seven _____

   c. Thirty-six _____

   d. Five thousand, four hundred eleven _____

   e. Twenty-three thousand forty-one _____

   f. Three hundred forty-seven thousand, five hundred eighty-nine

      _____

3. Write each of the following numerals as word numbers.

   a. 36 _____

   b. 3,472 _____

   c. 693,472 _____

REVIEWING WHOLE NUMBERS
UNIT VII

ASSIGNMENT SHEET #2 — REVIEW ROUNDING

NAME _____ SCORE _____

1. Round each of the following numbers to the nearest ten.

   a. 35 _____ f. 67,807 _____

   b. 326 _____ g. 91,017 _____

   c. 468 _____ h. 834 _____

   d. 9,630 _____ i. 903 _____

   e. 475 _____ j. 678,943 _____

2. Round each of the following numbers to the nearest hundred.

   a. 670 _____ f. 68,924 _____

   b. 8,920 _____ g. 893 _____

   c. 4,675 _____ h. 4,756 _____

   d. 91,349 _____ i. 89,204 _____

   e. 6,793 _____ j. 8,910 _____

3. Round each of the following numbers to the nearest thousand.

   a. 6,789 _____ f. 89,002 _____

   b. 46,572 _____ g. 6,734 _____

   c. 693,420 _____ h. 56,099 _____

   d. 67,900 _____ i. 86,743 _____

   e. 86,740 _____ j. 91,900 _____

REVIEWING WHOLE NUMBERS
UNIT VII

ASSIGNMENT SHEET #3 — REVIEW ADDITION

NAME _____ SCORE _____

1. Identify the parts of the addition problem 783 + 680 = 1463. Write the correct names in the blanks.

   a. 783 — _____

   b. 1463 — _____

   c. 680 — _____

2. Solve the following addition problems.

   a.
   ```
     8
    15
   + 6
   ```

   b.
   ```
    24
    46
   + 30
   ```

   c.
   ```
   364
    24
   789
   + 210
   ```

   d.
   ```
    360
    472
   + 3,604
   ```

   e.
   ```
   4,621
   + 48,902
   ```

   f.
   ```
   84,002
    7,920
       34
   +  789
   ```

3. Solve the following story problems. Show your work.

   a. Joe rode his bike for 5 days. He rode 9 miles the first day, 12 miles the second day, 11 miles the third day, 7 miles the fourth day, and 15 miles the last day. How many miles did he travel?

ASSIGNMENT SHEET #3

b. Memphis High School's football ticket sales for four games were: $985, $1,051, $787, and $681. Find the total of the ticket sales.

c. In his woodworking class, Arthur used four boards. Their lengths were 8 feet, 12 feet, 10 feet, 23 feet. Find the total length.

d. On a final exam Kim had in math there were four parts. The first part had 26 problems, the second part had 42 problems, the third part had 11 problems, and the fourth part had 23 problems. How many problems were on the final exam?

REVIEWING WHOLE NUMBERS
UNIT VII

ASSIGNMENT SHEET #4 — REVIEW SUBTRACTION

NAME _____ SCORE _____

1. Identify the parts of the following subtraction problem. Write the correct names in the blanks.

$$\begin{array}{r} 375 \\ -\ 75 \\ \hline 300 \end{array}$$

a. 75 — _____

b. 300 — _____

c. 375 — _____

2. Solve the following subtraction problems.

a. $\begin{array}{r} 364 \\ -\ 199 \\ \hline \end{array}$ b. $\begin{array}{r} 4{,}708 \\ -\ 3{,}908 \\ \hline \end{array}$ c. $\begin{array}{r} 67{,}934 \\ -\ 9{,}902 \\ \hline \end{array}$

d. $\begin{array}{r} 6{,}783 \\ -\ 4{,}920 \\ \hline \end{array}$ e. $\begin{array}{r} 624 \\ -\ 594 \\ \hline \end{array}$ f. $\begin{array}{r} 324{,}789 \\ -\ 248{,}667 \\ \hline \end{array}$

3. Solve the following story problems. Show your work.

a. Mr. Jones had $3,475 in the bank. He withdrew $2,400. How much does he have left in the bank?

ASSIGNMENT SHEET #4

b. There are 1,950 students in our city schools. There are 521 in the high school alone. How many are not in high school?

c. Burns Manufacturing Company had 3,400 employees. 125 employees were laid off. How many are working now?

d. A carpenter sold a newly built house for $19,256. It cost him $12,525 to build the house. What was his profit?

REVIEWING WHOLE NUMBERS
UNIT VII

ASSIGNMENT SHEET #5 — REVIEW MULTIPLICATION

NAME _____ SCORE _____

1. Identify the parts of the following multiplication problem. Write the correct names in the blanks.

$$\begin{array}{r} 347 \\ \times\ 20 \\ \hline 6{,}940 \end{array}$$

   a. 347 — _____

   b. 20 — _____

   c. 6,940 — _____

2. Solve the following multiplication problems. Show your work.

   a. $\begin{array}{r} 65 \\ \times\ 42 \\ \hline \end{array}$ b. $\begin{array}{r} 624 \\ \times\ 32 \\ \hline \end{array}$ c. $\begin{array}{r} 6{,}789 \\ \times\ 42 \\ \hline \end{array}$ d. $\begin{array}{r} 6{,}789 \\ \times\ 69 \\ \hline \end{array}$

   e. $\begin{array}{r} 6{,}789 \\ \times\ 348 \\ \hline \end{array}$ e. $\begin{array}{r} 7{,}923 \\ \times\ 478 \\ \hline \end{array}$ f. $\begin{array}{r} 91{,}011 \\ \times\ 3{,}401 \\ \hline \end{array}$

3. Solve the following story problems. Show your work.

   a. Jerry is building a house. He used 8d common nails which cost 18¢ a pound. How much did he pay for 23 pounds?

ASSIGNMENT SHEET #5

b. A construction company sold 17 homes at a profit of $3,450 on each. What was the total profit?

REVIEWING WHOLE NUMBERS
UNIT VII

ASSIGNMENT SHEET #6 — REVIEW DIVISION

NAME _____ SCORE _____

1. Identify the parts of the following division problem. Write the correct names in the blanks.

$$6\overline{)45}\quad\begin{array}{r}7\\ \\ 42\\ \hline 3\end{array}$$

a. 7 — _____

b. 45 — _____

c. 3 — _____

d. 6 — _____

2. Solve the following division problems. Show your work.

a. $7\overline{)77}$ b. $4\overline{)5{,}616}$ c. $44\overline{)4{,}048}$

d. $14\overline{)14{,}196}$ e. $32\overline{)783}$ f. $46\overline{)6{,}794}$

ASSIGNMENT SHEET #6

3. Solve the following story problems. Show your work.

   a. A construction company made a profit of $34,475 on 25 homes. What was the profit on each home?

   b. In the city schools there are 96 teachers and 2,208 students. How many students are there per teacher?

   c. Two-inch high boards are in a stack 13 feet high. How many boards are in the stack?

REVIEWING WHOLE NUMBERS
UNIT VII

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #1

1. a. Hundred thousands
   b. Ten thousands
   c. Thousands
   d. Hundreds
   e. Tens
   f. Ones

2. a. 102
   b. 347
   c. 36
   d. 5,411
   e. 23,041
   f. 347,589

3. a. Thrity-six
   b. Three thousand four hundred seventy-two
   c. Six hundred ninety-three thousand, four hundred seventy-two

Assignment Sheet #2

1. a. 40
   b. 330
   c. 470
   d. 9,630
   e. 480
   f. 67,810
   g. 91,020
   h. 830
   i. 900
   j. 678,940

2. a. 700
   b. 8,900
   c. 4,700
   d. 91,300
   e. 6,800
   f. 68,900
   g. 900
   h. 4,800
   i. 89,200
   j. 8,900

3. a. 7,000
   b. 47,000
   c. 693,000
   d. 68,000
   e. 87,000
   f. 89,000
   g. 7,000
   h. 56,000
   i. 87,000
   j. 92,000

ANSWERS TO ASSIGNMENT SHEETS

Assignment Sheet #3

1. a. Addend
   b. Sum or total
   c. Addend

2. a. 29
   b. 100
   c. 1,387
   d. 4,436
   e. 53,523
   f. 92,745

3. a. 54 miles
   b. $3504
   c. 53 feet
   d. 102 problems

Assignment Sheet #4

1. a. Subtrahend
   b. Difference
   c. Minuend

2. a. 165
   b. 800
   c. 58,032
   d. 1,863
   e. 30
   f. 76,122

3. a. $1,075
   b. 1,429 students
   c. 3,275 employees
   d. $6,731

Assignment Sheet #5

1. a. Multiplicand
   b. Multiplier
   c. Product

2. a. 2,730
   b. 19,968
   c. 285,138
   d. 468,441
   e. 2,362,572
   f. 3,787,194
   g. 309,528,411

ANSWERS TO ASSIGNMENT SHEETS

3. a. $4.14
   b. $58,650

Assignment Sheet #6

1. a. Quotient
   b. Dividend
   c. Remainder
   d. Divisor

2. a. 11
   b. 1,404
   c. 92
   d. 1,014
   e. 24 R15
   f. 147 R32

3. a. $1,379
   b. 23 students
   c. 78 boards

REVIEWING WHOLE NUMBERS
UNIT VII

TEST

NAME _____ SCORE _____

1. Identify the parts of the following problems. Write the numbers of the correct names in the corresponding blanks. Some answers may be used more than once.

364 (a)	36 (d)	11 (g)	365 (k)
− 298 (b)	× 10 (e)	(j) 12)135 (h)	789 (l)
68 (c)	360 (f)	132	+ 340 (m)
		3 (i)	1,494 (n)

a. _____ 1. Multiplicand

b. _____ 2. Remainder

c. _____ 3. Sum

d. _____ 4. Difference

e. _____ 5. Divisor

f. _____ 6. Minuend

g. _____ 7. Subtrahend

h. _____ 8. Product

i. _____ 9. Dividend

j. _____ 10. Quotient

k. _____ 11. Addend

l. _____ 12. Multiplier

m. _____

n. _____

2. Write the place values of each digit in the numeral 602,412.

a. 6 — _____

b. 0 — _____

TEST

c. 2 — _____

d. 4 — _____

e. 1 — _____

f. 2 — _____

3. a. Write the numeral for one hundred two thousand, four hundred twenty-one.

_____

b. Write the numeral 27,802 in words. _____

_____

4. a. Round 146 to the nearest hundred. _____

b. Round 148,251 to the nearest ten. _____

c. Round 7,962 to the nearest thousand. _____

d. Round 485 to the nearest hundred. _____

e. Round 12,421 to the nearest thousand. _____

5. Solve the following problems. Show your work.

a. 367 + 2,140 + 672

b. 3,526 − 908

c. 39,670 + 234 + 6,790

d. 375 × 23

e. 6,248 × 324

f. 36,489 − 20,892

TEST

g. $29\overline{)609}$ h. $32\overline{)6,892}$

6. Solve the following story problems. Show your work.

a. Joe lives 8 miles north and 6 miles west and Jane lives 14 miles south and 11 miles east from town. How far is it from Joe's to Jane's?

b. Mr. and Mrs. Smith and their two children planned to travel 550 miles on their vacation. They figured that it would cost 8¢ a mile. Find the cost for the trip.

TEST

c. The geometry class measured the athletic field and found it to be 390 feet long. How many yards was this?

d. Mr. Green's income is $825 a month. $529 is spent for bills. What amount is left for recreation?

e. Bill drove to work each day for one month (20 days). At the end of the month his bill for the car was $80. What was the cost for 1 day?

REVIEWING WHOLE NUMBERS
UNIT VII

ANSWERS TO TEST

1. a. 5
   b. 7
   c. 4
   d. 1
   e. 12
   f. 8
   g. 10
   h. 9
   i. 2
   j. 5
   k. 11
   l. 11
   m. 11
   n. 3

2. a. Hundred thousands
   b. Ten thousands
   c. Thousands
   d. Hundreds
   e. Tens
   f. Ones

3. a. 102,421
   b. Twenty-seven thousand, eight hundred two

4. a. 100
   b. 148,250
   c. 8,000
   d. 500
   e. 12,000

5. a. 3,179
   b. 2,618
   c. 46,694
   d. 8,625
   e. 2,024,352
   f. 15,597
   g. 21
   h. 215 R12

6. a. 39 miles
   b. $44
   c. 130 yards
   d. $296
   e. $4